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How Regions Adjust to Base Closings: The Case of Loring AFB Ten Years After Closure, 2005

Maine Department of Labor

Maine Center for Workforce Research and Information

Maine Labor Market Information Services

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Loring
Commerce
Centre



How Regions Adjust to Base Closings

*The case of Loring AFB
ten years after closure.*





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Preface

In 2005, the United States faced its sixth round of Base Realignment and Closure (BRAC) recommendations. As in previous rounds, bases in Maine were targeted, including the Portsmouth Naval Shipyard, the Brunswick Naval Air Station, and the Defense Finance and Accounting Service center in Limestone. As policymakers and redevelopment experts respond to these changes, Maine's previous experience with redevelopment following the closure of Loring Air Force Base in 1994 offers insight into strategies and cautions for successful redevelopment. This report summarizes the population, employment, income, and housing changes in Aroostook County following the closure of Loring AFB in the context of efforts to redevelop the area following the base closure.

The author of this report, Aaron McCullough, served as a summer intern from Bowdoin College in the 2005 Maine State Government Internship program. He compiled this report at the request of Labor Market Information Director, John Dorrer. Mr. McCullough would like to recognize the guidance and contributions from Labor Market Information staff, including Suzanne Thivierge, Glenn Mills, Chris Boudreau, Michael Burnett, Kent Saunders, Winifred Malia, and Stephen Duval of the Bureau of Employment Services. He also thanks Brian Hamel, Carl Flora, and Patricia Zenzius of the Loring Development Authority for their contributions.

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Introduction

Military installations supported by the Department of Defense have a significant economic impact on the regions where they are located. This project examines the case of Loring Air Force Base (AFB) in Aroostook County ten years after closure.

Concerns about the effects of base closure have prompted numerous studies which have produced substantial information to guide policymakers. This report began with an extensive review of base closure literature. Most analyses suggest four general conclusions: 1) The effects of a base closure are highly localized and greatest within the first 3 to 5 years following the closure; 2) The larger the base relative to the surrounding communities, the larger the effects; 3) Underlying economic factors, such as long-term population patterns and economic growth trends, can soften or aggravate the overall impact of a base closure on the surrounding communities; 4) Over time, the base and its abandoned facilities can be an opportunity for economic growth and diversification. However, the recency of most closures limits the reliability of available studies to accurately predict long-term effects and gauge the efficacy of redevelopment strategies.

This analysis attempts to shed light on the long-term economic impact of military base closings by examining population, employment, income, and housing conditions in Aroostook County and local communities both before and after the closure of Loring AFB in 1994. Additionally, where the available data permits, these same conditions are traced annually during the decade since closure (1994 – 2004).

The data for this report was gathered from various sources, including the U.S. Bureau of Economic Analysis, the U.S. Bureau of the Census, the U.S. Bureau of Labor Statistics, and the Maine Department of Labor. The various methodologies of gathering data and their inherent limitations are considered in the analysis.

Geographic and Economic Context

Loring AFB is located in Aroostook County in northernmost Maine. The majority of the base area (62 percent) is in Limestone, another 32 percent is in Caswell, and the remaining 6 percent is in Caribou. Aroostook County is the region of influence because of its economic isolation from the rest of Maine. Within the county, there has been a wide range of economic impact resulting from the base closure. Limestone nearly became a ghost town, losing more than three quarters of its population. On the other hand, Presque Isle, which is 15 miles away, lost less than 10 percent of its population. To differentiate the wide range of local effects, this analysis focuses on four nearby communities: Caribou, Fort Fairfield, Limestone, and Presque Isle. Much of the County's commercial, industrial, and public service facilities are located in these four communities. In addition, these four communities housed 81 percent of the base-related population.¹ Presque Isle is the farthest from the base.

With a land area of 6,672 square miles, Aroostook is Maine's largest county. It is larger than the states of Connecticut and Rhode Island combined. Yet the County had a population of 73,428 in 2003 – less than two percent of the combined populations of those states. More than 88 percent of the County's area consists of heavily wooded land which supports its wood, paper, and lumber industries. The County is primarily agricultural, producing potatoes, broccoli, carrots, and berries, which together contribute significantly to the agricultural economy of the state. Recreation-related activities, including hunting, skiing, snowmobiling, and canoeing, also contribute to the economic base of the county. The recent national trend toward more service-related employment is also evident in Aroostook County, with increases in the service, retail trade, and the finance/insurance/real estate sectors.

BRAC Process and Observations

In light of foreign defense policy shifts, particularly the end of the Cold War, the Department of Defense (DoD) began reorganizing its base structure to eliminate excess military capacity and optimize military readiness in accord with current defense strategy. The DoD has been authorized under the Base Realignment and Closure (BRAC) process (formerly the Defense Base Closure and Realignment Act) to identify the facilities, properties, and installations that are no longer essential to support the limited force structure authorized by Congress. Once the DoD has made its recommendations, the Secretary of Defense hands them to the BRAC Commission, an independent body charged with reviewing the recommendations of the Secretary.

The four BRAC rounds in 1988, 1991, 1993, and 1995 produced 499 recommendations for base closures, or realignments, including 97 major base closures. The numbers will increase this year when the final BRAC 2005 decisions are sent to the President for approval on September 8, 2005. This report examines the case of Loring AFB, an unlikely success story, in hopes that future base closures can experience the same success.

Responding to base closures is something that communities must be prepared to tackle. Closure can create *opportunities* for economic development and diversification, replacing a potentially dangerous economic dependence on a single employer. According to a Massachusetts Institute of Technology study of base closures, diversity is the key to long-term economic stability, which “makes investors feel more comfortable.”² It can stimulate investment by reducing a community's dependence on the military. Businesses hesitate to invest in areas where their markets can be pulled out from under them. Military base communities are vulnerable to government decisions to expand or contract the military, which pose undue business risk.

Furthermore, base closings underline a more common theme for all communities. Communities must recognize that economies have limited lives and that the success of a community depends on its ability to recognize economic lifecycles. All communities must be prepared to help families and employers adapt to these evolutions, which can happen rapidly and unexpectedly. Whether it is a base closure or a plant shutdown,

economic transitions are often inevitable and require a planned strategic response. Closure announcements should not be met with panic and fears of “doom and gloom.” Rather, they should be seen as opportunities to shed the old in place of the new, which ultimately lead to innovation, production, and growth. A community’s particular opportunity structure should not be seen as a permanent entitlement, but something always in flux. Towns that once depended on mills for their incomes have had to transform their local economies, in many cases for something new and better. Through diversification, communities can establish a business risk portfolio that is insulated from shocks like base closings and business shutdowns.

History of Loring Air Force Base

On February 25, 1953, Loring Air Force Base (AFB) became operational as a unit of the Eighth Air Force and a home to the 42nd Bombardment Wing of the United States Air Force. The Strategic Air Command charged Loring AFB with the mission to develop and maintain the capability of conducting long-range bombing operations, assist in naval operations, and implement and sustain effective air refueling operations. Loring AFB was the closest base in the continental United States to the western Soviet Union, Europe, and the Middle East. A mega-base, with the second largest capacity of all Air Force bases under the Strategic Air Command, it had two runways, the largest capacity for weapon storage and fuel storage, a major hospital, commercial and industrial areas, residential areas, and other support facilities. In addition to supporting several European exercises, Loring AFB played a pivotal role in the conduct of Desert Shield, Desert Storm, and the return of U.S. forces from the Persian Gulf.

The 1991 BRAC Commission confirmed the decision to close Loring AFB and transfer the base’s B-52 aircraft to K.I. Sawyer AFB in Michigan. Closure also involved transferring the military personnel assigned to Loring to other Air Force bases across the country over three years. According to the DoD, Loring AFB ranked relatively low in long-term military value and in the condition of base facilities. At the time of its recommendation, the BRAC Commission noted, “The economic impact on the Loring AFB community will be severe.”³

President George H. W. Bush accepted the recommendations of the 1991 BRAC Commission and submitted them to Congress on July 12, 1991. Congress did not disapprove the recommended closure and realignment list within the time allowed under applicable law. As a result, the decision to close Loring AFB became final.

The Air Force ceased operations on the base on September 6, 1994. Wastes generated at the installation industrial shops and maintenance hangars plagued redevelopment. These included waste oils, fuels, spent solvents, pesticides, and heavy metals, all of which would need to be removed to ready the base for civilian use.

Responding to Closure

The Loring Redevelopment Committee (LRC) was formed in February 1992 to provide a single agency to coordinate the redevelopment efforts associated with the reuse of Loring AFB. In June 1993, the State of Maine formed the Loring Development Authority (LDA) to acquire and manage the properties of Loring AFB and implement the plan created by the LRC.

The 11-member LDA Board of Trustees includes one member each from the municipalities of Caribou, Caswell, Fort Fairfield, Limestone, Presque Isle, and Van Buren; one member from Aroostook County; three members at large from the state of Maine; and the Commissioner of Economic and Community Development. As an “authority,” the LDA is a quasi-public agency with jurisdiction over a public resource, in this case, the base property that became the Loring Commerce Centre. The LDA acts as a municipality and a corporation, but without the ability to levy property taxes.

The LDA is charged to develop the Loring Commerce Centre by attracting new businesses and opportunities for education and employment. Since the closure of Loring AFB, the Authority has made many adjustments to offset the economic impact of the base on Aroostook County. It has applied for grants and works with state and federal agencies to offer a number of financial incentives to businesses interested in using the base. The major business developments in the last 10 years have produced 1,455 jobs, replacing over 100 percent of civilian positions lost when Loring closed in September 1994. Active discussions with a number of other private employers have the potential to create hundreds of new jobs.



Established as an independent state authority in 1993, the Loring Development Authority manages and develops the Loring Commerce Centre, formerly Loring Air Force Base.

Population Changes

Base closures reduce local populations by transferring military personnel and their dependents to other military installations. At the same time, civilians employed at affected bases lose their jobs, and this has a ripple effect in the surrounding area, causing many nonmilitary personnel and their dependents to relocate. This reduces school enrollments and the revenues historically relied upon to support local schools. It also reduces demand in the housing market and the market for consumer goods.

A growing population is important to sustaining the local economy and insulating it from disruptions that do occur. Economic developers, like employers generally, depend on a diverse labor force. Population changes have a direct, proportionate effect on the available labor force. As populations decline, so do innovations and the human capital needed to implement them.

Size of Change

From 1870 to 1960, the population of Aroostook County tripled from 29,606 to its peak of 106,064. Aroostook County has experienced a 31 percent decline in population since then to a current population of 73,428. Studies indicate that the County's population growth during the 1950's resulted from the establishment of Loring AFB, masking a pattern of out-migration that had already begun during the decade. Changes in the potato and forestry industries caused this out-migration. The decline of these industries together with increased mechanization and labor-saving technologies caused a large labor surplus beginning in the 1960's. Workers began leaving the area to seek employment opportunities and higher wages in southern Maine and the rest of New England.

Table 1.1 Population Trends

Community and County	1970	1980	1990	2000	2004
Caribou	10,419	9,916	9,415	8,312	8,279
Fort Fairfield	4,859	4,376	3,998	3,579	3,537
Limestone	8,745	8,719	9,922	2,361	2,325
Presque Isle	11,452	11,172	10,550	9,511	9,402
Caribou/Presque Isle LMA	N/A	51,899	50,108	39,115	37,918
Aroostook County	92,463	91,331	86,936	73,938	74,485
Maine Statewide	992,048	1,124,660	1,227,928	1,274,923	1,317,253

Source: U.S. Bureau of the Census

Note: Decennial data was examined as opposed to annual population estimates because of the vast differences in population estimates among available sources.

According to 1990 census counts, the population within Aroostook County was 86,936. (See Table 1.1.) The population decreased by 0.1 percent per year during the 1970's and 0.5 percent per year during the 1980's. In contrast, the population of the state grew at an average annual average rate of 0.9 percent and 1.3 percent, respectively, during these decades. The gradual closure of Loring AFB between 1991 and 1994 accelerated what was already a slow, steady population decline beginning in the early 1970's.

Table 1.2 Percent Change in Population

Community and County	1970-1980	1980-1990	1990-2000	2000-2004
Caribou	-4.8%	-5.1%	-11.7%	-0.4%
Fort Fairfield	-9.9%	-8.6%	-10.5%	-1.2%
Limestone	-0.3%	13.8%	-76.2%	-1.5%
Presque Isle	-2.4%	-5.6%	-9.9%	-1.2%
Caribou/Presque Isle LMA	N/A	-3.5%	-21.9%	-3.1%
Aroostook County	-1.2%	-4.8%	-15.0%	0.7%
Maine	13.4%	9.2%	3.8%	3.3%

Source: U.S. Bureau of the Census

The number of military personnel and their dependents assigned to Loring AFB on the eve of the base's closure beginning in 1991 was 7,194. In that same year, 5,350 military personnel and their dependents resided in Loring AFB on-base housing. This represented 74.4 percent of all military personnel and dependents assigned to the base.

In general, the more military personnel that reside on-base, the less severe the impact to the local community. On-base military families depend less on local housing and retail markets for their housing, meals, clothing, and household supplies. At Loring AFB, prior to its closure, these military families and civilian employees who were reservists or retired military made a significant share of their retail purchases from the Army Air Force Exchange Service (AAFES) and other on-base businesses. They also did some or all of their banking on the base. This distinguished them from the 1,199 civilian base workers who spent most of their disposable income in the community rather than on the base. The base also supplied hospital services for base personnel and their families, further attenuating their connection and impact on the local economy compared to civilian workers and the rest of the population. Because the military personnel were transferred to other bases across the county when the base closed, they did not create any extra demand for social services, such as unemployment compensation, as might the displaced civilian workers.

Civilian personnel are classified as Appropriated Fund (AF), Nonappropriated Fund (NAF), Contract Civilian, or private business employees. AF civilians are paid directly by Congress with appropriations. They are not paid from the military's discretionary budget. NAF personnel are employed by the Department of Defense to support morale, welfare, and recreational programs on the base. NAF employees consist mostly of active and retired military, and their working spouses and dependents. Contract civilians work on the behalf of the government through private employers who contract with the government to provide needed services. They may or may not lose their jobs following a base closure and their skill sets are generally more transferable to other employment. Nearly half of the civilian personnel on Loring AFB were highly paid AF employees. They were accustomed to income levels which would prompt them to relocate if they could not find other highly paid jobs in the local job market and their specialized skill sets were less transferable to the local economy. A third were lower paid NAF employees who either left with their family military personnel or could find comparable wages in the local job market.

The town of Limestone experienced the largest population decline following the Loring base closure. From 1990 to 2000, 76.2 percent of the Limestone population left the area, the majority of which were military personnel and their families. Nearby towns such as Caribou, Fort Fairfield, and Presque Isle also lost population, but in lesser amounts. (See Table 1.2.) The Loring base population represented the majority of the 12,998 persons lost in the County between 1990 and 2000, a nearly 15 percent reduction. (See Figure 1.1.) Despite a slight increase in the estimated population for Aroostook County in 2004, the future population in Aroostook County is expected to stabilize or experience another gradual decline.

An out-migration study from October 2004 found that people with lower incomes were more likely to leave Aroostook County than those with higher incomes. It also found that people left the area because of a perceived lack of career opportunities. With regard to the closing of the Loring base, the out-migration study concludes that this “did not apparently result in a significant spike in out-migration in the years immediately following,” and adds that there was “a fairly steady decline in the rate of out-migration from 1997 to 2002 (with a slight rise in 2001).”⁴ This suggests that the Loring base closure continued but did not noticeably aggravate a pre-existing trend of workers migrating out of Aroostook County. Internal Revenue Service county-to-county data for years 1995 through 2002 gathered by the study shows that the majority (51 percent) of workers migrating out of Aroostook County also left the state of Maine. Those who chose to remain in the state, relocated to Penobscot County or Southern Maine (York and Cumberland Counties).

Table 1.3 Military and Civilian Population at Loring AFB, Fiscal Year* 1988-1991

Category	1988	1989	1990	1991
Military Personnel	3,635	3,528	3,304	3,027
Living on base	2,571	2,576	2,414	2,239
Living off base	1,064	952	890	788
Military Dependents	5,005	4,555	4,786	4,167
Living on base	3,526	3,068	3,460	3,111
Living off base	1,479	1,487	1,326	1,056
Civilian	1,125	1,308	1,413	1,199
Appropriated fund	498	523	520	478
Nonappropriated fund	364	351	393	397
Contract civilian	258	428	493	318
Private business on base	5	6	7	6
Military Retirees	602	660	624	721
Military Retiree Dependents	885	970	917	1,060
Total	11,252	11,021	11,044	10,174

Source: Loring AFB Economic Resource Impact Statements

*Federal Government Fiscal Year begins October 1st

Beyond the loss of population and incomes, Aroostook County suffered a loss of active community members who supported many service and social activities. The military and civilian employees at Loring AFB provided Red Cross assistance, sponsored annual Boy Scout events, volunteered for the Special Olympics, and donated time at local schools.

The base also served the needy through “Operation Happy Christmas.” The base population added diversity, a connection to the military, and a sense of pride to the Limestone region that has not been duplicated since the base closure. The continuing population decline is the primary ailment from which Limestone and Aroostook County have yet to recover.

Military Retirees

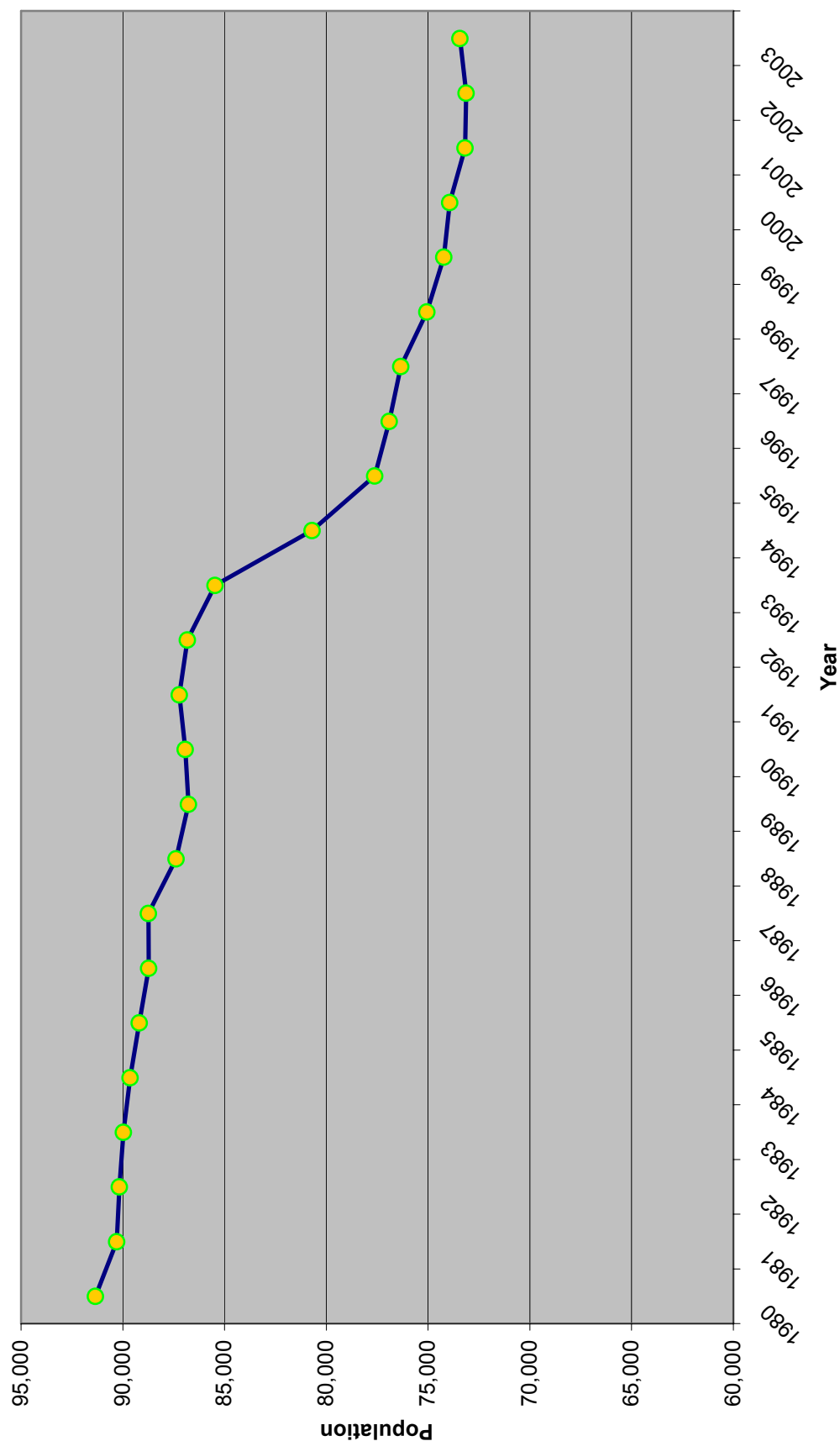
The number of military retirees directly reduces the severity of a base closure on a community. Military retirees are eligible for many of the same base privileges as active duty personnel. They generally receive a number of services on the base, such as medical care and dental care. Military retirees are likely to remain in the community after a base closure since they are normally established in the area and are not dependent on base employment for their livelihood. They are apt to divert their discretionary spending and demand for medical care to the local community following the closure of a commissary and other base services. Military retirees are also somewhat buffered from the full financial effect of job loss since they receive military pensions. In this way, retired military personnel reduce a base closure’s impact on the local economy.

Military retirees in Aroostook County increased from 602 in 1988 to 721 in 1991. The number of base-related employees, their dependents, and military retirees and their dependents totaled 14,772 persons in 1991. Retired military personnel and their dependents represented 12.1 percent of this total. In addition, they contributed to the \$9.87 million in retail sales on the base commissary in 1991.⁵ Assuming a 12 percent contribution consistent with their numerical percentage, military retirees and their dependents at Loring provided a stimulus of roughly \$1 million to the local economy after the base closure.

School Enrollments

Population losses sustained as military personnel and their dependents leave a base closure community reduce school enrollments and the revenues used to support local schools, since state aid to local schools is based on total enrollment. Like the population in Aroostook County, regional school enrollments began falling before the closure of Loring AFB in 1994. Data collected from Maine School Administrative District (M.S.A.D.) 20 and from Caribou and Limestone school districts show steadily declining school enrollments beginning in 1987. M.S.A.D. 20 operates an elementary school, a middle school, and a high school serving the town of Fort Fairfield.

Figure 1.1 Aroostook County Population



In October 1991, 1,154 military dependents and 79 civilian dependents of personnel at the Loring base were enrolled in Limestone schools. Combined, they comprised 88 percent of the total student population. This number compares to a 12 percent Loring enrollment in Caribou schools and an 11 percent enrollment in MSAD 20.⁶ It is no surprise that the most noticeable reduction in school enrollment shown in Figure 1.2 occurs in Limestone between 1993 and 1994. The number of students enrolled in the Limestone School District plunged from 1,195 in 1993 to 345 in 1994, a decline of 850 students, or 71 percent, over one year.

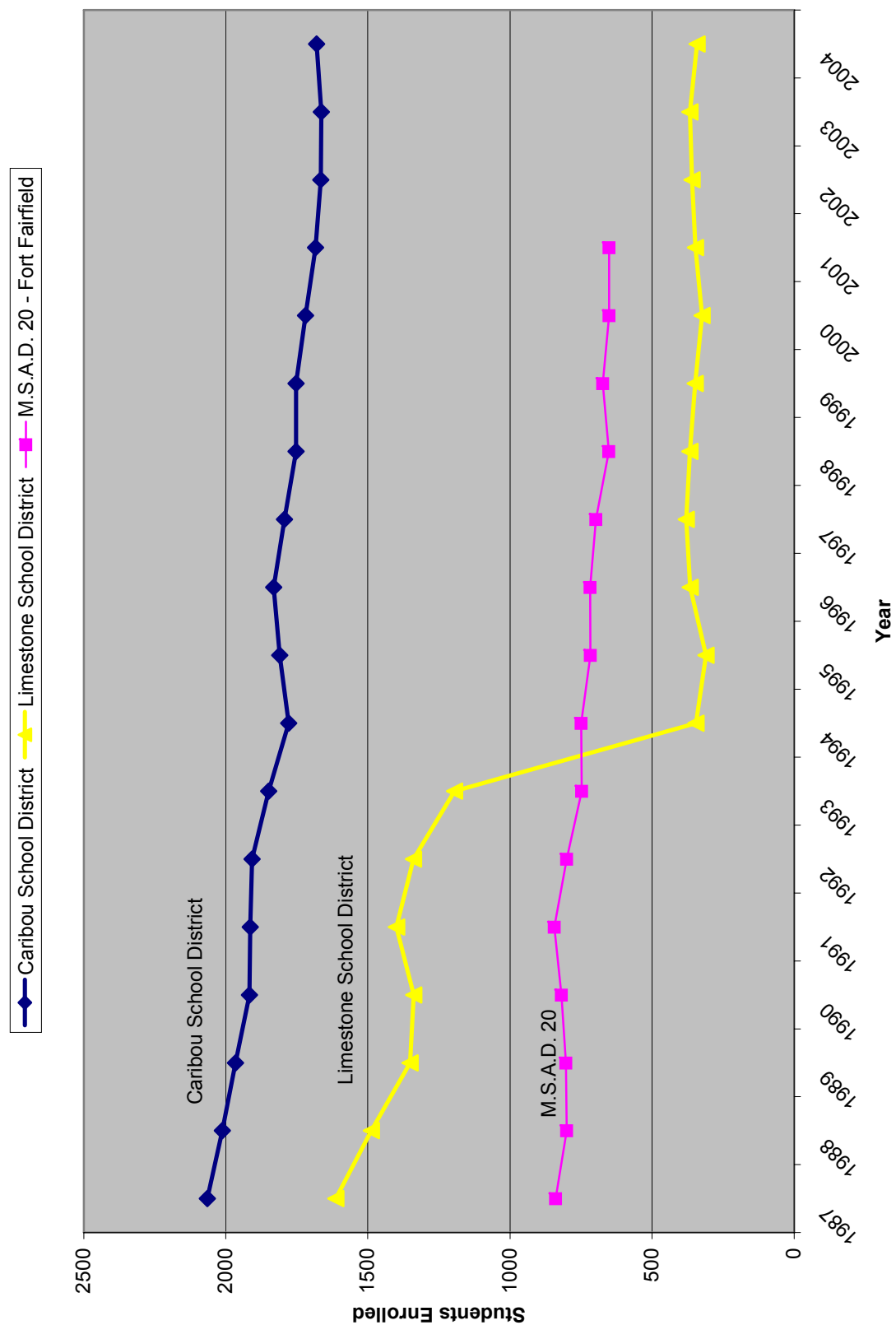
Limestone school enrollment has remained steady since 1994, but enrollments in the other two school districts have declined slightly at rates that resemble the years before the base closure.

This picture indicates, at least with regard to school enrollment, that the effects were rather localized. The Limestone School District clearly absorbed most of the impact of the base closure. Fourteen percent population decline is significant for Aroostook County, but most of that population left Limestone. It is also difficult to determine if the direct and secondary declines from the base closure are responsible for the entire loss; given the events that took place in the 1990's in Aroostook County, it is reasonable to believe that other economic impacts also drove the out-migration (see *Impacts to the Region Aside from Base Closure* pg. 32).



The Loring Job Corps Center enhances Limestone's population by bringing over 350 students age 16 to 24 to the Loring Commerce Centre for training in literacy and vocational trades. The Loring Job Corps Center employs over 140 people with a total payroll of \$3.7 million.

Figure 1.2 October School Enrollments Related to Loring



Employment Effects

Military installations are generally large employers. At its peak, Loring AFB employed over 4,000 military and civilian personnel, making it the largest employer in Aroostook County. Laid-off workers feel the direct impact of job and income loss, but the community also feels an indirect impact from reduced economic activity, higher unemployment rates, and an increased need for social services to the newly unemployed. The economic resiliency of a community can be measured by its ability to absorb displaced workers and produce employment opportunities.

Employment in Aroostook County and on Loring AFB

Total employment in Aroostook County grew at an average annual rate of 0.5 percent between 1970 and 1990. Job growth in the state of Maine over this period averaged 2.8 percent annually, compared to a figure of 2.6 percent nationally for the total civilian employment as a whole.⁷ In contrast, military employment decreased nationally at an average annual rate of one percent over the same period.⁸

As of September 1991, when the BRAC Commission confirmed the closure of the Loring AFB, 3,027 military employees and 1,199 civilian employees worked on the base. The number of military employees on the base had been in decline since 1988, falling a total of 11.2 percent between 1988 and 1991. Over the same period, the number of civilian personnel at the base increased by 6.6 percent. (See Table 1.3.)

When the base closure was announced in 1991, civilian employees anticipated a job search period. Many base employees responded positively by going back to school to get post-secondary degrees. University enrollments in Aroostook County increased. A \$2.1 million grant from the U.S. Department of Labor supported the creation of the Loring Transition Assistance Center (LTAC). The staff at the LTAC tracked participation and job development and provided services to base workers.

Size of the Labor Force and Unemployment Rates

People who lose jobs in a base closure are generally not the ones reemployed by redevelopment. The time lag from closure to reuse of a base typically means that workers cannot wait for new opportunities on the base. Instead, they are forced to seek employment in another region, while others leave the labor force altogether, sometimes through retirement. When bases are reused, the new industries are usually quite different and need workers with different skills and sometimes specialized training. When laid-off workers do not quickly find comparable work, their incomes settle to levels well below their previous wages.

The civilian labor force in Aroostook County grew 7.1 percent between 1980 and 1990 even as the working age population decreased.⁹ The Northern Maine Development Commission explains this rise in the labor force participation rate as due primarily to the entrance of women into the

workforce. Over the period from 1990 to 1995, the civilian labor force in Aroostook County fell 2.3 percent to 38,810.

Table 2.1 Labor Force Data for Caribou				
Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate (%)
1990	4,584	4,203	381	8.3
1991	4,767	4,193	574	12.0
1992	4,700	4,096	604	12.9
1993	4,625	3,968	657	14.2
1994	4,464	3,754	710	15.9
1995	4,328	3,676	652	15.1
1996	4,151	3,658	493	11.9
1997	4,178	3,733	445	10.7
1998	4,020	3,709	311	7.7
1999	4,095	3,886	209	5.1
2000	3,971	3,801	170	4.3
2001	3,905	3,728	177	4.5
2002	3,939	3,729	210	5.3
2003	4,007	3,783	224	5.6
2004	3,995	3,757	238	6.0

Source: Maine Department of Labor

Table 2.2 Labor Force Data for Fort Fairfield				
Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate (%)
1990	2,107	1,982	125	5.9
1991	2,212	2,025	187	8.5
1992	2,191	1,975	216	9.9
1993	2,119	1,909	210	9.9
1994	2,110	1,844	266	12.6
1995	1,934	1,713	221	11.4
1996	1,905	1,709	196	10.3
1997	2,003	1,774	229	11.4
1998	1,899	1,756	143	7.5
1999	1,950	1,839	111	5.7
2000	1,654	1,573	81	4.9
2001	1,623	1,532	91	5.6
2002	1,622	1,528	94	5.8
2003	1,656	1,546	110	6.6
2004	1,648	1,535	113	6.9

Source: Maine Department of Labor

Table 2.3 Labor Force Data for Limestone				
Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate (%)
1990	1,788	1,646	142	7.9
1991	1,825	1,615	210	11.5
1992	1,759	1,561	198	11.3
1993	1,649	1,422	227	13.8
1994	1,258	949	309	24.6
1995	1,569	1,359	210	13.4
1996	1,507	1,352	155	10.3
1997	1,543	1,392	151	9.8
1998	1,488	1,387	101	6.8
1999	1,543	1,454	89	5.8
2000	961	902	59	6.1
2001	947	882	65	6.9
2002	956	881	75	7.8
2003	969	889	80	8.3
2004	960	883	77	8.0

Source: Maine Department of Labor

Table 2.4 Labor Force Data for Presque Isle				
Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate (%)
1990	5,507	5,202	305	5.5
1991	5,690	5,191	499	8.8
1992	5,591	5,065	526	9.4
1993	5,382	4,928	454	8.4
1994	5,122	4,659	463	9.0
1995	4,968	4,531	437	8.8
1996	4,910	4,518	392	8.0
1997	4,953	4,603	350	7.1
1998	4,867	4,601	266	5.5
1999	4,975	4,821	154	3.1
2000	4,915	4,767	148	3.0
2001	4,819	4,657	162	3.4
2002	4,834	4,653	181	3.7
2003	4,925	4,720	205	4.2
2004	4,898	4,687	211	4.3

Source: Maine Department of Labor

The year 1994 is notable for Limestone, as the civilian labor force dropped 24 percent to 1,258. At the same time, the unemployment rate rose to 24.6 percent. The Limestone unemployment rate fell from this high rate to levels similar to those in Caribou and Fort Fairfield partly due to jobs created at the Loring Commerce Centre.

However, in all four towns, the decline in the unemployment rate corresponds with a reduction in the civilian labor force in 1998 instead of an increase in employment. It is not clear whether this

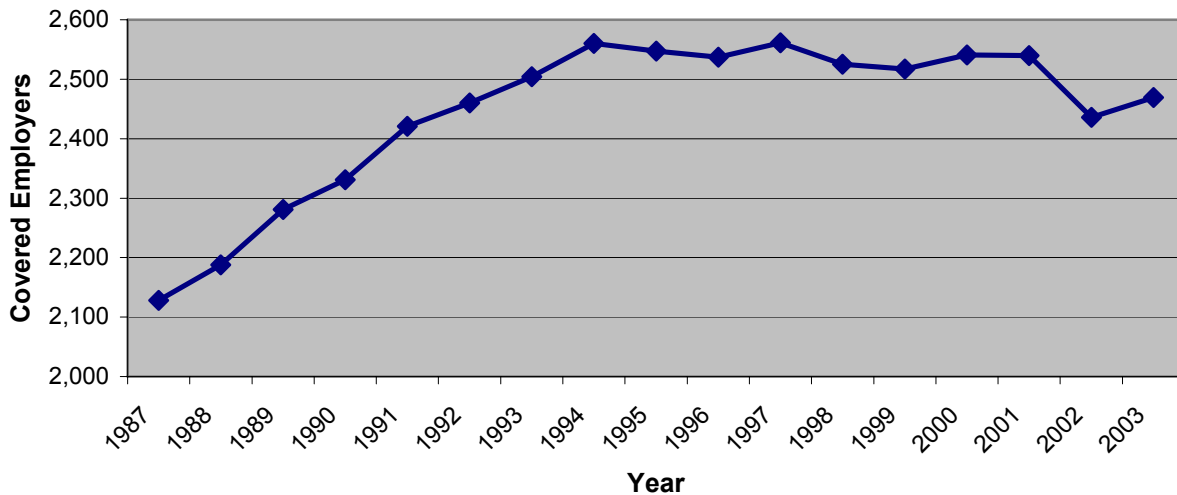
decline represents workers who retired, left the area, or became discouraged and left the labor force. All that is clear is that the unemployment rate did not fall because of significant increases in employment.

The Department of Defense did not effectively transfer any base property until 1997. As a result, many jobs were not added until that year. An exception, the Defense Finance and Accounting Service (DFAS) began operations on the base without any need for a transfer of property, as it is an arm of the DoD. By June of 1995, DFAS employed 82 workers. The Loring Job Corps Center also managed to establish itself earlier than any land transfer from the Department. By July of 1996, the Center employed 17 workers. While the rest of the base property underwent environmental cleanup, the Loring Development Authority did not gain control of base property, making it virtually impossible to attract private businesses. While DFAS and the Loring Job Corps Centre jobs paid above average wages and required skilled workers as employees, it could hardly absorb the 1,455 civilian workers laid off since 1991. Instead, total full-time and part-time employment in Aroostook County fell from 44,272 in 1990 to 40,137 in 1994, before it reached its lowest point in 1996 at 38,410. Employment did not begin to rebound until the following year, but most of the unemployed had already left the County.

The unemployment rate in Aroostook County varied from 4.9 percent in 1970, to 11 percent in 1980, 6.9 percent in 1990, and 4.4 percent in 2000. The state of Maine exhibited a somewhat similar trend, with rates of 5.6 percent in 1970, 7.4 percent in 1980, 5.2 percent in 1990, and 3.5 percent in 2000. While the unemployment rates were more severe in Aroostook County for every year, the similar pattern suggests that a state-wide phenomenon influenced changes in the unemployment rate.

Despite the base closure, the number of private employers did not decrease significantly after 1994. The number of private employers rose steadily since 1987, but fell for the first time in 1995, the year after the closure of the Loring base. Since then, the number hovered between 2,547 and 2,469. Of course, the Federal Government is not included in these statistics. The steady number of private employers suggests that the base closure did not result in a major net loss of local employers as a secondary effect. Nevertheless, an obvious negative effect is the stagnant growth of private employers since 1995. (See Figure 2.2.)

Figure 2.2
Covered Private Employers at Year-end in Aroostook County



The three years between base closure and property transfer (1994 to 1997) allowed Loring's infrastructure, telecommunications networks, and base facilities to be improved. Renovations were necessary to attract many of the current tenants to the Loring Commerce Centre. However, the passage of time left former civilian employees behind. By October of 1997, total employment from redevelopment reached 573, or less than half of the 1,199 civilian jobs lost as a result of the base closure. The Limestone unemployment rate remained at 9.8 percent, but fell to 6.8 percent by 1998. The unemployment rate improved because some 400 job seekers left the Limestone labor force, which fell from 1,825 persons in 1991 to 1,425 persons in 1998. According to information obtained from interviews with current base employers, most former civilian base employees left Limestone and were not reemployed through redevelopment efforts.

Major Industrial Sectors

The major employment sectors within Aroostook County at the time of base closure in 1994 were services, retail trade, manufacturing, and state and local government. Between 1990 and 1994 military employment in Aroostook County as a percentage of total employment fell from 8.3 percent to 2.6 percent as a result of the base closure. In 1990, the base contributed 93 percent of employees in the military sector.¹⁰ In 1991, the base employees accounted for 72 percent of total federal civilian employees in Aroostook County. Federal employment of civilians declined from 3.9 percent to 1.8 percent, also due to a loss of civilian workers on the base. By 2000, federal military employment fell to just one percent of total employment while the service sector grew to 31 percent, without any remarkable changes within other industry sectors. (See Figures 2.3 to 2.4.) The rise in the service sector reflects the same trend across the state.

Figure 2.3
1990 Distribution of Employment by Major Industrial Sector in Aroostook County

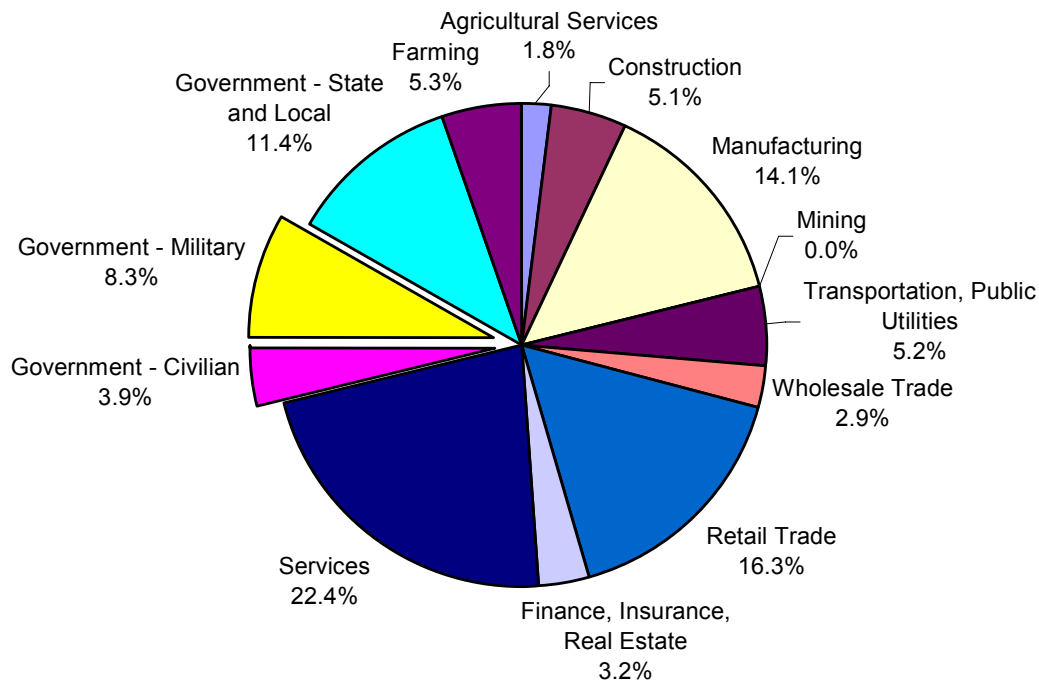
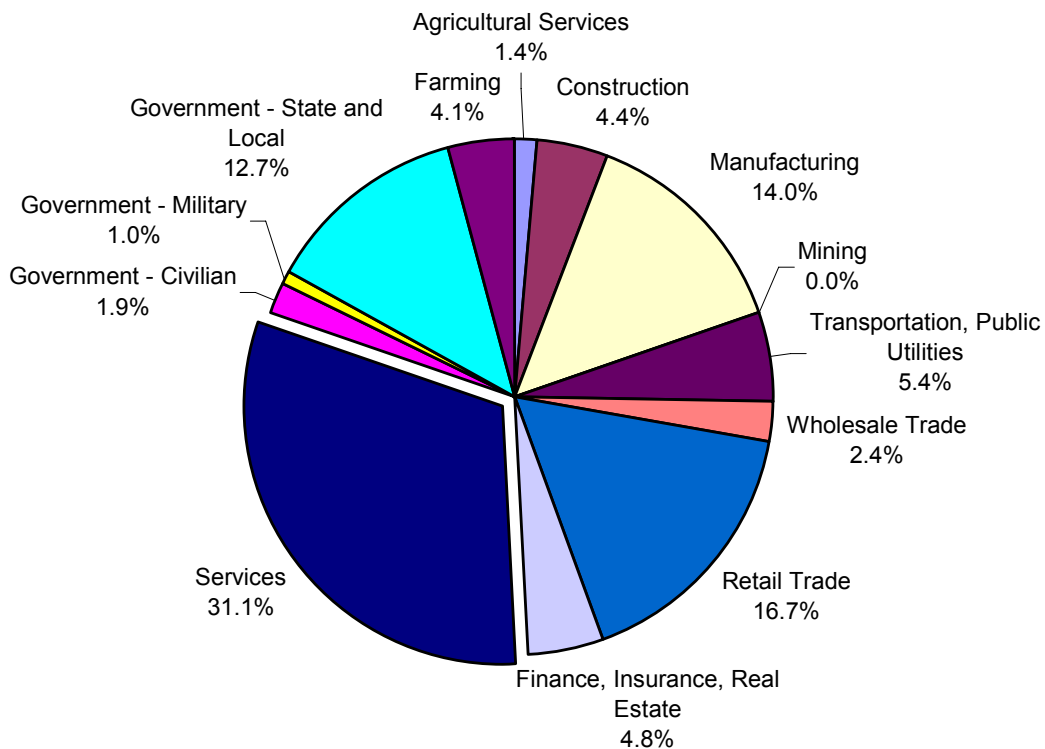


Figure 2.4
2000 Distribution of Employment by Major Industrial Sector in Aroostook County



Base Redevelopment

Base redevelopment is a daunting undertaking for any community. The Loring Development Authority (LDA) faced a formidable challenge given the rural location of Loring AFB, the homogenous economy, and the population moving away from northern Maine. According to Brian Hamel, the President and CEO of the LDA from 1994 to 2005, overcoming the perception of Limestone as a place with poor quality of life and a harsh winter climate proved to be the most difficult aspect of redevelopment. The BRAC Commission cited “quality of life” as a reason to close the base. While this was not an official DoD criterion, the commission’s use of it fostered extreme resentment among local residents who perceived it as unfair and untrue. Even Mr. Hamel suffered from the same “false perceptions” about residing in a rural and isolated area such as Aroostook County until Maine’s Governor John McKernan invited him to the base for a day in 1994. After his visit, Mr. Hamel realized the many reasons why people and businesses can flourish in a rural area and relocated to Aroostook County with his family to develop the Loring Commerce Centre.

As it began its work, the Loring Development Authority recognized that something needed to be done to keep the base from deteriorating. The State of Maine could not afford the millions of dollars needed to protect and maintain the buildings on the base. The Authority and Maine’s politicians lobbied for federal assistance. Loring pioneered a 10-year caretaker agreement with the Air Force. The base went into “caretaker status” after residual operations phased out with its subsequent closure. Caretaker status meant federally-funded security and limited maintenance to keep base facilities in “mothballed” condition.

Apart from maintaining the facilities, the LDA had to make the Commerce Centre available and attractive to private businesses. At the outset, waste contamination from jet oils and fuels limited reuse of base property because military installations are exempt from civilian environmental regulations. The Environmental Protection Agency listed Loring AFB as a Superfund site, indicating that it would need thorough environment cleanup before the land could be reused. This process began with a BRAC Cleanup Team.

The DoD has been responsible for all environmental cleanup expenses. The ongoing cleanup process has employed local workers and cost the DoD more than \$130 million. At least another \$30 million will be spent to complete cleanup and conduct long-term monitoring of the base. Businesses at the Loring Commerce Centre enjoy “broad indemnification from future liability associated with pre-existing contamination.”¹¹ The LDA has worked with the Department of Environmental Protection and the Environmental Protection Agency to ensure that the DoD meets all of its obligations.

The extensive environmental cleanup process delayed transfer of base property. The Loring Development Authority did not have control over any significant property or base assets until 1997 when base property rights were first given to the LDA through a 55-year lease from the Air Force. As previously noted, the need to update telecommunications

infrastructure and renovate base facilities contributed to the delay in the use of base property for redevelopment, although that delay resulted primarily from the need for environmental cleanup. A suitable telecommunications infrastructure did not exist at the time the base closed in 1994. Nor were many base facilities ready to be occupied by private businesses.

The LDA turned to other agencies for money to fund marketing, renovations, and infrastructure improvements. To support dislocated workers and help communities plan and implement their economic redevelopment objectives, the federal government has provided assistance through numerous programs. A major source of assistance has been the DoD's Office of Economic Adjustment (OEA), which gave more funding to Loring than any other base in the country, including covering the majority of the LDA's administrative salaries and expenses for 5 years. Generous grants from the OEA paid for several demolition projects on the base in situations where the LDA deemed the land to be more valuable without the run-down base facilities.

Community Development Block Grants from the U.S. Department of Housing and Urban Development financed several building renovation projects on the base, including the transformation of the old base commissary into the SITEL call center in 1997. SITEL Corporation of Omaha, Nebraska opened an Insurance Sales and Services division call center at the Loring Commerce Centre in 1998. It currently employs 262 people, and at one time employed over 350. Another \$400,000 in block grants together paid for some renovations to the space now shared by the Maine Military Authority and the Pattison Sign Group, which employs 51 skilled workers. The Pattison Sign Group, one of the world's largest electric sign companies, invested an additional \$1.5 million to establish its first U.S. manufacturing plant at Loring in 2001.

The Department of Commerce's Economic Development Administration provided funds for marketing programs including promotional videos and mailings. The Economic Development Administration also contributed one million dollars to the renovation of a former Air Force warehouse that is shared between the Pattison Sign Group and the Maine Military Authority. The Federal Aviation Administration and the Department of Labor also contributed to a total of more than \$27 million in federal grants for redevelopment of Loring as of 1999. The extraordinary amount of federal funding from these sources contrasts with a low level of state funding. Over time, state funding has declined from \$300,000 to \$282,000 per year.

The LDA has attracted new businesses and more jobs through grants, financial incentives, and marketing Maine's natural resources and competitive advantages. The sign as one enters the Loring Commerce Centre announces the theme of redevelopment in bold red letters, "Your Maine Door to Opportunity." Defining a theme has shown to be historically important to attracting businesses that will not only take advantage of regional growth trends, but also serve as magnets to other businesses for future growth. Biotechnology, popular for its growth throughout the 1990's, was abandoned as a possible theme because of Loring's rural location and lack of connections to major

universities and research firms. The universities played a role as places for training rather than as magnets for attracting businesses.

The LDA has instead focused on marketing Loring's natural resource industries, manufacturing, aviation, education, and back-office work and telecommunications. The base is well wired for data transmission, which helps to offset the negative perception of Loring's location as a wintry rural area.

Loring's rural setting is actually an opportunity for growth. After September 11, 2001, some businesses lost everything because their data was stored in a central urban area. Data security specialists have turned to rural states to diversify where their records are kept. Loring has exceptional data services and telecommunications opportunities as a result of major investments from 1994 when the base closed, to 1997, when the base property was transferred to the LDA. Digital switching is available throughout the region and both ATT and Verizon updated the local point-of-presence to triple redundancy.

The LDA has attracted new businesses to relocate to the former base with great real estate deals. The Authority offered SITEL five years of free rent subject to a minor \$20,000 annual fee. The Maine Military Authority, a Humvee repair center which also refurbishes other military and government-owned vehicles, rents nearly 400,000 square feet at less than \$2 per square foot. The Maine Military Authority commenced operations in September 1994 and is currently the largest employer at the Loring Commerce Centre with 526 employees, a number that is expected to grow to 750. The LDA also matches some private investments. In this manner, it provided \$300,000 to fund the renovation project for the Maine Military Authority and the Pattison Sign Group.

A number of state and federal programs divert financial assistance to businesses wishing to establish at the Loring Commerce Centre. The Loring Job Increment Finance Program provides municipal services including a fire department, a water and sewer plant, and roadway and grounds maintenance. In addition, the LDA secured a \$400,000 grant from the Department of Economic and Community Development and state funding to establish an Applied Technology center. The Loring Applied Technology Center is a "business incubator to assist companies through the early stages of their foundation."¹² The Loring Commerce Centre is part of Maine's Pine Tree Zone Program and a vast array of tax credits and exemptions programs. The Loring Commerce Centre assists businesses with questions regarding incentives. The Northern Maine Development Commission (NMDC) and the Aroostook Partnership for Progress assist it in this effort.

In July 2001, the Air Force transferred 2,805 acres out of a total 12,000 acres of base property to the LDA at no cost through an economic development conveyance. U.S. Secretary of Defense William Cohen, Senator Olympia Snowe, and Representative John Baldacci (currently Governor of the state of Maine) sponsored legislation that allowed the LDA to receive the property for free because Limestone is a rural town. The Loring transfer, besides being the largest military base transfer at the time, allowed the LDA to sell the property to businesses instead of leasing it, as it had been doing. The remaining

acres were transferred to the U.S. Fish and Wildlife Service to establish the Aroostook National Wildlife Refuge.

As of May 2005, the Loring Commerce Centre had 22 tenants currently employing 1,455 people and occupying approximately 1.7 million square feet of facility space. This figure represents 63 percent of available building square footage and 49 percent of the land that is presently committed to use at the Loring Commerce Centre. While these figures are significant, a large amount of available facility space and land remains unused more than seven years since it became available.

In addition to the previously mentioned businesses at the Loring Commerce Centre, the Loring Development Authority recruited Hydroblend, Inc., a food processing related business that opened in July 1999. The Maine Winter Sports Center located its headquarters at the Loring Commerce Centre. Since establishing at Loring, the Center has developed first-class Nordic Skiing, Biathlon and Alpine Skiing facilities and training programs throughout Aroostook County. The Telford Group Inc. operates an aircraft storage and maintenance business at Loring, occupying over 247,000 square feet of hangar space.

Of the 1,455 new jobs created at Loring, 1,042 represent public sector employment and 385 represent private sector jobs. This discrepancy illustrates the difficulty of attracting private businesses to the base and the cost borne by taxpayers to bring public employment to Aroostook County. (See Figure 2.5, next page.)

The Loring Development Authority is not concerned that most of the jobs resulting from redevelopment of base property at the Loring Commerce Centre are public, according to its President and CEO, formerly Brian Hamel, and his successor Carl Flora. A job is a job, especially when it includes benefits, as the public jobs do at the Loring Commerce Centre. Additionally, the 526 jobs at the Maine Military Authority are considered “public,” even though they are similar to private sector jobs since they are not funded from state revenues but instead rely on government contracts which would otherwise be performed by the private sector. All places have a mix of private and public employment, and it is to be expected that redevelopment of base property should begin with public employment since redevelopment requires significant investment and is fraught with risk because of the economic downturn resulting from laid-off base employees.

Table 2.5 Average Annual Employment at the Loring Commerce Centre											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005*
Private	12	22	47	164	345	353	353	349	327	339	371
Public**	150	334	500	521	559	613	598	627	695	807	987
Total	162	356	547	685	904	966	951	976	1022	1146	1358

Source: Loring Development Authority Yearly Employment/Tenant Activity Report

Note: The numbers reported by the LDA (presented above) do not match the numbers logged in the Quarterly Census of Employment and Wages records kept by the Maine Department of Labor.

*2005 Data includes January 2005 to May 2005

**Public employment numbers include the Loring Development Authority

Figure 2.5
Average Annual Employment at the Loring Commerce Centre

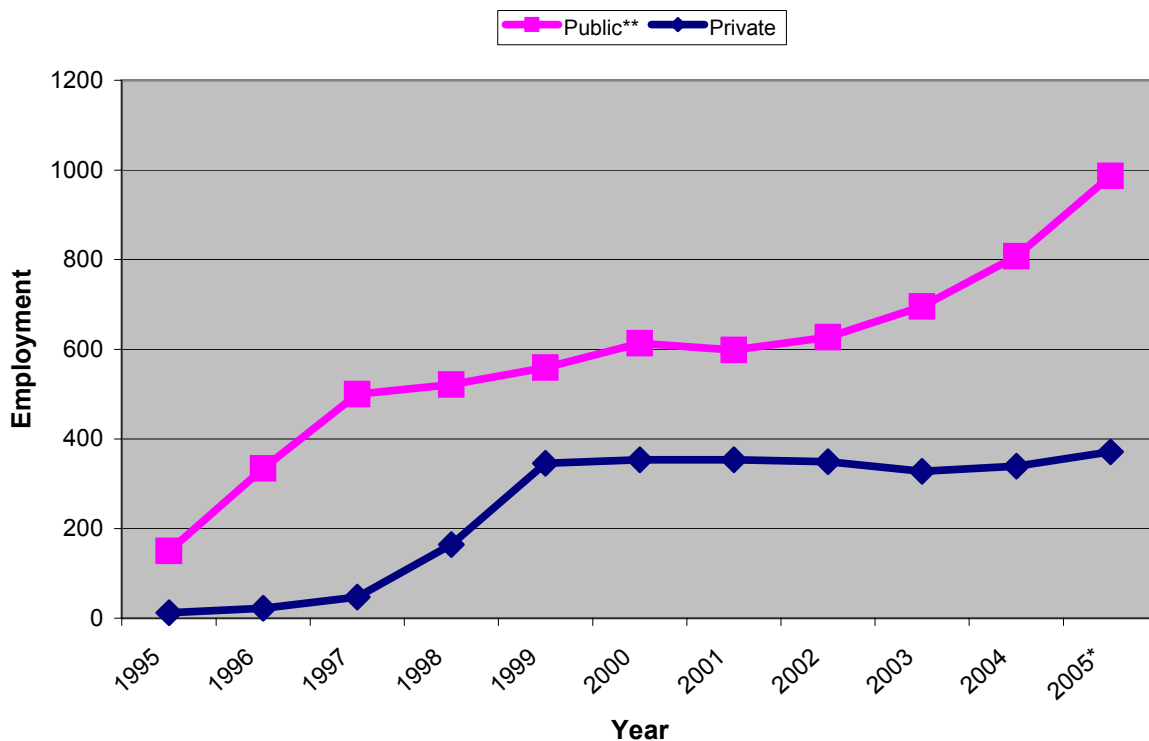


Table 2.6 Annual Percent Change in Employment at the Loring Commerce Centre										
Category	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Private	83.3%	113.6%	248.9%	110.4%	2.3%	0.0%	-1.1%	-6.3%	3.7%	
Public	122.7%	49.7%	4.2%	7.3%	9.7%	-2.4%	4.8%	10.8%	16.1%	
Total	119.8%	53.7%	25.2%	32.0%	6.9%	-1.6%	2.6%	4.7%	12.1%	
Aroostook County	-0.3%	1.2%	-0.6%	2.0%	-0.2%	-2.1%	-1.2%	0.6%	N/A	
Maine	2.6%	1.1%	0.6%	2.1%	1.5%	-0.2%	0.7%	0.8%	1.2%	

Source: Loring Development Authority Yearly Employment/Tenant Activity Report; Maine Department of Labor (Maine Statewide and Aroostook County years 1996 to 2001); Maine Employment Statistical Handbooks (Aroostook County years 2002 to 2004)

Note: The data collected for Aroostook County and Maine Statewide from the Bureau of Economic Analysis differs from what is presented in the Maine Employment Statistical Handbooks. The employment levels are estimates and vary because of data collection methods.

Income Effects

Military bases often pay the highest wages in an area. When civilian base personnel are laid-off, they must often settle for lower wages or relocate. Incomes supported by military base payrolls enter the local economy through retail purchases. Removing high wages from an area not only directly impacts the displaced workers, but the local economy as well since those wages are no longer circulated to make purchases.

Incomes Before Closure

Income per capita (expressed in real 2003 dollars) in Aroostook County increased from \$15,630 in 1980 to \$19,953 in 1990, an increase of 28 percent. Over the same period, Maine per capita income rose 33 percent from \$18,105 to \$24,153. (See Figure 3.1.)

The payroll at Loring equaled \$66 million for military personnel and \$19 million for civilian workers in 1991, for a total of \$85 million annually. Half of this (\$42,918,477) was paid to personnel residing on the base, while the other half (\$42,143,444) went to off-base personnel. Because these wages were paid in federal dollars, they represented new money in the economy as opposed to money that was merely being circulated in the region. These payrolls contributed significantly to the average annual wage paid to federal employees in Aroostook County in 1991, which equaled \$20,443. The \$19 million civilian payroll at Loring (see Table 3.1) accounted for 55 percent of the annual total federal civilian payroll in Aroostook County in 1991, down from 62 percent in 1988.

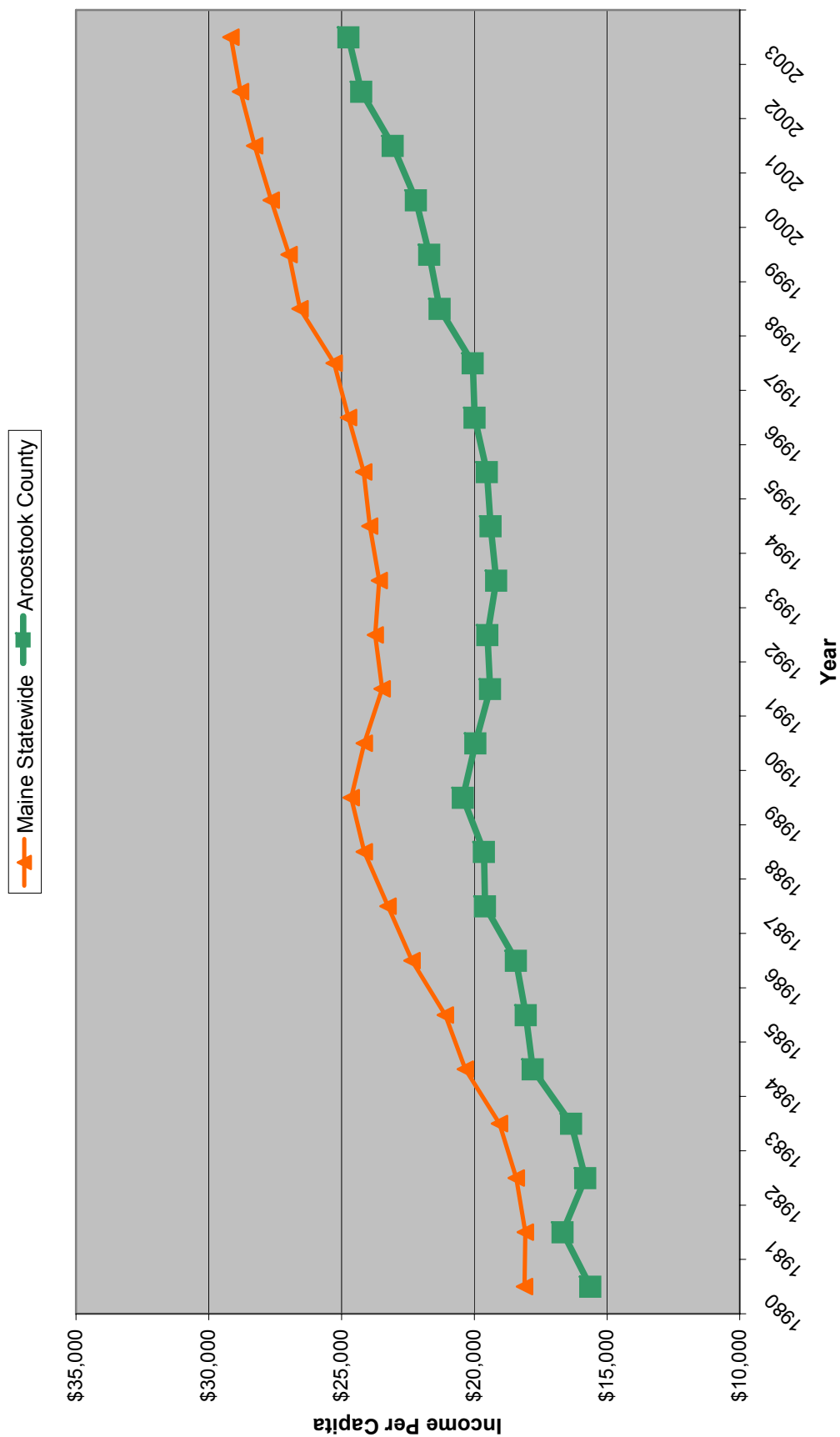
Table 3.1 Loring AFB Payrolls, Fiscal Year 1988-1991

Category	1988	1989	1990	1991
Military	\$70,165,540	\$74,017,443	\$71,545,030	\$66,305,904
Civilian	18,466,292	18,778,807	18,801,671	18,756,017
Appropriated fund	15,921,024	15,669,241	15,841,037	15,315,978
Nonappropriated fund	2,477,868	3,019,742	2,856,078	3,355,111
Other contract	67,400	89,824	104,556	84,928
Total payrolls	\$88,631,832	\$92,796,250	\$90,346,701	\$85,061,921

Source: Loring AFB Economic Resource Impact Statements

The money paid to off-base personnel is much more likely to have been circulated in the local economy. In 1991, the Air Force estimated that personnel residing off-base circulated 56 percent of their wages through the local economy through spending, whereas on-base personnel spent 39 percent of their wages in the local economy. The lesser percentage for personnel residing on base reflects their use of services on the base in lieu of purchasing services in the local economy. Although the Air Force estimated that off-base military personnel spent slightly more of their income in the local economy (56.7 percent) as compared to civilian personnel (56.0 percent), civilian employees, all of whom reside off base, spent more in actual dollars than off-base military personnel because their incomes were higher.¹³

Figure 3.1
Annual Income Per Capita in Aroostook County in 2003 Dollars



In 1991, the average wage in Aroostook County averaged \$17,235. Wages paid to military personnel were 27 percent higher, while wages paid to Appropriated Fund (AF) civilians were 86 percent higher than the county-wide average. In 1991, the average military employee at Loring earned \$21,905, the average AF civilian earned \$32,042, and the average Nonappropriated Fund (NAF) civilian earned \$8,451. The employment structure which prevailed at the Loring base is largely unknown, including the portion of wages paid to part-time versus full-time employees; however, NAF civilian jobs were probably part-time positions filled by military spouses, working-age dependents, and veterans. This would explain the lower wages earned by NAF civilian employees at Loring.

When the 1991 wage figures are adjusted for inflation and expressed in 2003 dollars, the average AF civilian worker's income amounts to \$42,898, while the average income for military personnel is \$29,326.

Incomes After Closure

In 2003, the average wage in Aroostook County reached \$24,960 in yearly earnings. The average wage in the service industrial sector, which employed nearly one third of the Aroostook County labor force, was slightly lower at \$21,892. In 2003, the manufacturing sector remained the highest paying sector with an average annual wage of \$37,804.

In 2000, the median household income in Limestone reached \$35,313, slightly below the state average of \$37,589, up 60 percent from the 1989 figure for Limestone of \$22,081. (See Figure 3.2.) Limestone's annual median household income growth rate between 1989 and 2000 outstripped the state average (3.2%), Aroostook County average (3.2%), and the growth in the neighboring towns of Caribou (3.0%), Fort Fairfield (3.0%), and Presque Isle (2.5%) over the same period.

Despite the loss of money from the closing of the Loring base, redevelopment has brought many high paying jobs to the area, contributing to household income growth. The average wage for an employee at the Loring Commerce Centre was \$28,306 in 2003. This wage exceeded the Aroostook County average of \$25,480 reported in the same year. The highest wages were still paid by the federal government. Average earnings at DFAS in 2000 were \$33,804 and rose to \$39,016 in 2003. While this wage was relatively high for the area, it was below the 2003 values for AF civilian workers in 1991 (\$42,898). Moreover, all workers at DFAS in 2003 were employed full-time, whereas the AF civilian workers employed at Loring in 1991 may have included some part-time employees.

Figure 3.2
Annual Median Household Income

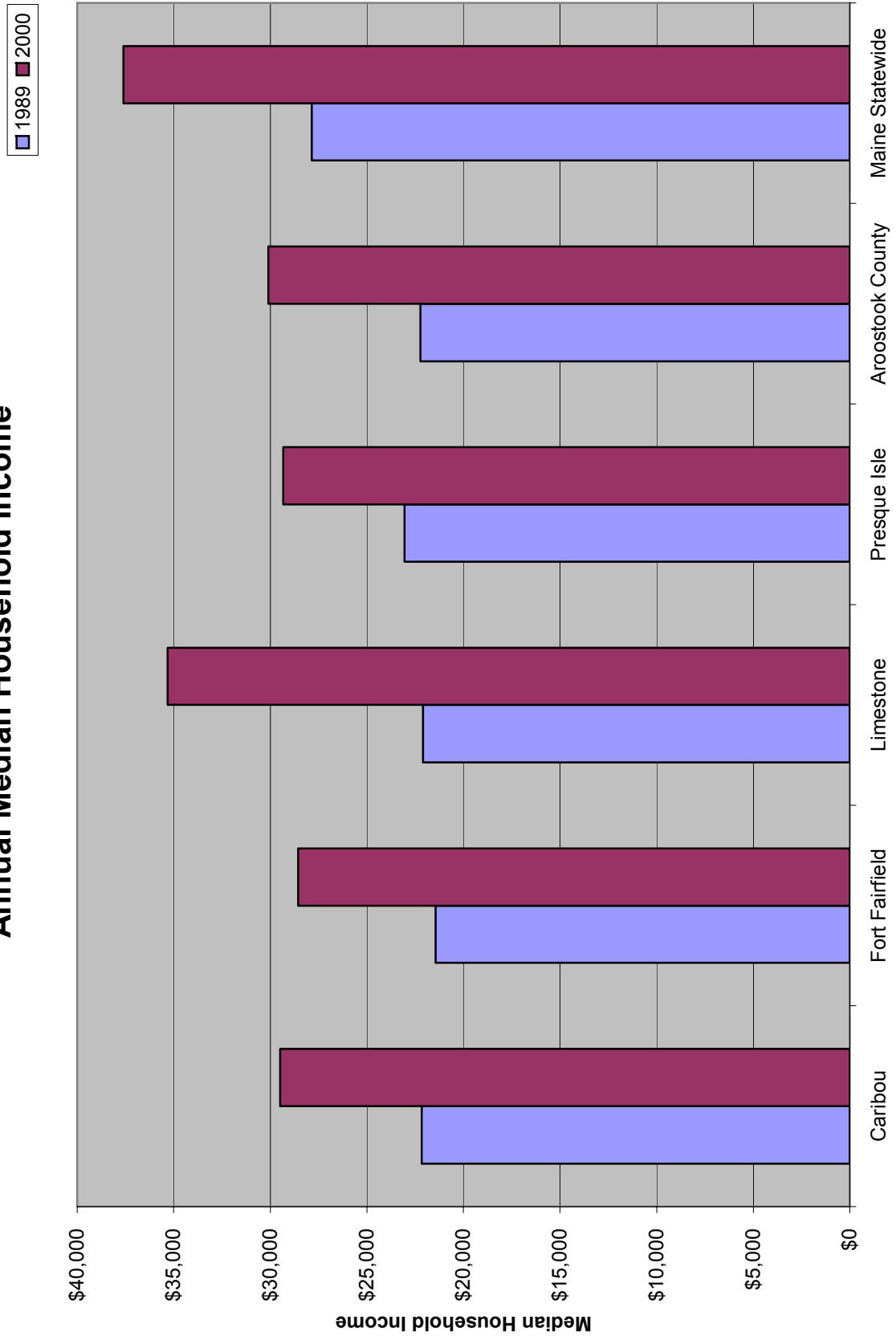


Table 3.2 Covered Employment and Wages in Aroostook County			
Year	Employers at Year-end	Average Employment	Average Annual Wage
2003	2,469	29,187	\$24,960
2002	2,436	29,036	24,388
2001	2,540	29,137	23,400
2000	2,541	29,497	22,516
1999	2,517	29,044	21,632
1998	2,525	28,586	21,112
1997	2,561	27,843	20,540
1996	2,537	27,709	19,828
1995	2,547	28,096	19,229
1994	2,560	28,370	18,741
1993	2,504	28,203	18,048
1992	2,460	27,972	17,973
1991	2,421	28,465	17,235
1990	2,331	28,684	16,758
1989	2,281	28,534	16,261
1988	2,188	28,121	15,690
1987	2,128	27,527	15,132

Source: Maine Employment Statistical Handbooks

Apart from the \$14 million in total wages paid to the 352 highly paid DFAS employees, the Loring Development Authority recorded 1,455 new jobs as a result of redevelopment of base property as of May 2005. These jobs have generated total wages in excess of \$30 million annually.

Base Expenditures and Retail Sales

When a base closes, the many observers worry that its payroll is needed to sustain local retail sales and thus the local economy. However, a large proportion of base payrolls never enter the local economy because bases are relatively isolated economies. As noted previously, according to Air Force estimates, less than half of the wages paid to Loring base personnel who resided on the base was spent in the local economy, while slightly more than half of the wages paid to base employees who resided off the base was spent in the local economy. This reflects the circumstance that most bases, like at Loring before its closure, offer on-base retail commissaries and exchange outlets for their personnel. In addition, military retirees in the area have privileges to shop on base. When a base closes, money previously spent in those internal markets, if it remains in the area, must be spent in the local economy.

Limestone was more vulnerable to the Loring base closure than other communities which have experienced base closures because it is a small community without a diversified economy. On the other hand, most of the equipment and supplies purchased to operate the Loring base were probably not manufactured in Limestone, or Aroostook County for that matter, and this circumstance tended to lessen the economic impact of the base closure. Nevertheless, the loss of consumer spending in a small community such as Limestone and a relatively unpopulated area such as Aroostook County was significant without regard to any purchases made by or for the base.

Annual expenditures at the Loring base before its closure increased from \$27 million in 1988 to \$39 million in 1991. (See Table 3.3.) Some, but not all of these expenditures were made in the local economy. Base expenditures also contributed indirectly to the regional economy. In 1991, these expenditures supported an estimated 1,357 secondary jobs generating \$27 million in wages in Aroostook County.¹⁴ The elimination of base expenditures when it closed in 1994 impacted retail sales in the area.

One of the most significant economic impacts of the Loring base closure resulted from the loss of the construction program on base. Many facilities were upgraded and several hundred construction workers were employed at an annual spending level of nearly \$14 million in 1991. When closure was announced, facility upgrades and new construction projects stopped. Undoubtedly, this reduced employment in the local construction industry. Indeed, employment in the construction sector fell from 2,261 jobs in 1990 to 1,946 in 1994, before declining to 1,788 in 2000.

Expenditures for toxic cleanup may have offset, at least in part, the loss of construction expenditures at the base. Some local workers were employed doing cleanup work along with significant number of workers from elsewhere, but it is not known if any workers employed in construction at the base before its closure found employment with the cleanup firms afterwards. Eight Air Force engineers continued to work exclusively on the environmental program into the late 1990's, but that number has since diminished to three part-time employees.

The amount spent at retail outlets on the Loring base was considerable, totaling \$22 million in 1991. Retirees who remained in the area had to shift their spending to off base retail outlets. This mitigated some of the adverse impact resulting from the loss of off-base spending by relocated military personnel.

Table 3.3 Loring AFB Annual Expenditures, Fiscal Year 1988 to 1991				
Expenditure Category	1988	1989	1990	1991
Total Construction	\$7,658,954	\$15,720,611	\$17,666,406	\$13,669,878
Total Services	6,113,687	7,701,435	8,242,871	10,048,436
Commissary/Base Exchange	1,923,571	2,177,687	2,281,426	3,043,491
Education	1,835,546	3,080,106	1,596,886	1,493,084
Health	756,078	791,651	729,527	920,046
Temporary Duty	124,679	520,812	560,208	931,208
Other	8,428,506	8,074,036	8,074,036	8,394,563
Total Expenditures	\$26,841,021	\$38,066,338	\$39,151,360	\$38,500,706

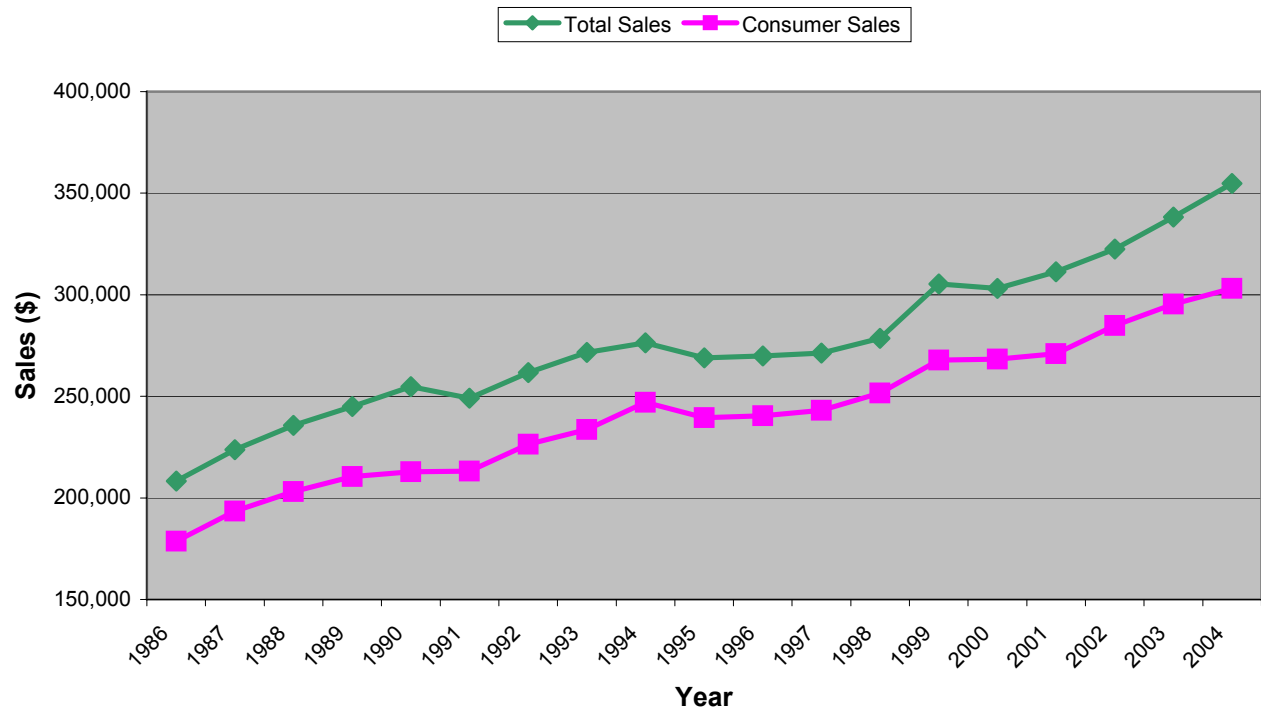
Source: Loring AFB Economic Resource Impact Statements

Overall, the change in Presque Isle Economic Summary Area (ESA) retail sales is mixed. Building supply sales decreased by 12.6 percent the year base closure was announced in 1991, yet increased by 19.4 percent the following year. Total sales fell by 2.2 percent in 1991, but rose until the year following the base closure in 1995. Taxable retail sales in the restaurants and lodging category slowed significantly from 1991 to 1996, but have continued to experience slight increases and decreases. Taxable retail sales in the food stores and other retail categories saw declines in 1993 and 1994, when the majority of military personnel were transferred. (See Table 3.4.) Figure 3.3 shows the overall decline and slow growth in total sales and consumer sales from 1995 to 1998, the four years following the Loring base closure. The pattern in each category matches the experience of the entire Northern Maine District.

Table 3.4 Annual Percent Change in Presque Isle ESA Taxable Retail Sales

Year	Building Supply	Food Stores	General Merchandise	Other Retail	Auto	Restaurants and Lodging	Total Sales	Consumer Sales
1987	8.3%	8.8%	7.1%	5.2%	10.0%	7.8%	7.5%	8.3%
1988	14.1	5.0	4.8	11.1	1.4	3.8	5.3	5.0
1989	3.7	5.4	0.2	10.1	1.0	11.1	3.9	3.7
1990	2.1	12.4	-6.5	6.1	-0.9	5.2	4.0	1.1
1991	-12.6	19.1	7.1	3.0	-11.2	2.8	-2.2	0.1
1992	19.4	22.3	-4.1	1.7	6.2	0.6	5.0	6.2
1993	-3.3	-10.2	30.2	-3.6	-3.2	1.6	3.8	3.2
1994	9.9	-10.6	13.6	-5.6	13.6	-0.6	1.7	5.7
1995	-1.3	-1.6	-3.7	-3.3	-5.8	1.9	-2.7	-3.0
1996	0.1	1.0	0.7	-2.0	3.4	-5.8	0.4	0.3
1997	-2.4	1.9	-2.7	4.5	1.1	10.2	0.5	1.1
1998	-2.9	6.4	0.7	8.0	8.6	-2.7	2.6	3.5
1999	14.3	5.2	5.6	-0.3	9.5	2.0	9.6	6.5
2000	-0.9	0.9	4.7	-2.4	-3.4	1.0	-0.7	0.2
2001	4.0	-16.4	9.3	-4.5	0.8	4.0	2.7	1.0
2002	2.0	2.4	7.9	1.7	7.4	0.2	3.6	5.1
2003	2.4	3.3	5.3	-6.1	4.7	5.0	4.9	3.7

Figure 3.3
Presque Isle ESA Taxable Retail Sales



Housing Effects

When a military base closes, the military personnel are transferred out of the region and civilian personnel sometimes leave to find new employment or higher wages. Removing these occupants from the local housing market reduces demand and leaves an excess supply of housing units. These market forces increase vacancy rates and adversely affect the growth of home values. For many people, their home is their most valuable assets. Thus, home values are important to the long-term economic stability of most people.

Housing Units, Vacancy Rates, and Median Values

Between 1980 and 1990, housing units increased in Caribou, Fort Fairfield, and Presque Isle but not in Limestone. A different phenomenon took hold of these four communities between 1990 and 2000, the decade of the Loring base closure. (See Table 4.1.)

In September 1991, when the BRAC Commission announced its recommendation to close Loring, 1,760 housing units existed on the base. Also at that time, 33 dormitory quarters existed, providing additional capacity for 1,457 people. By 2000, housing units fell in Caribou, Limestone, and Presque Isle. Limestone experienced the greatest decline, 1,238 housing units, or 50.9 percent. Most of the housing units on the base were situated where the Loring Commerce Centre now stands. They were demolished to make room for new business facilities at the Centre and to make the land more marketable. Demolishing unneeded housing units on the base after its closure increased the post-closure value of the base property and reduced excess housing supply, preventing what might otherwise have been a significant decline in home values. Median owner-occupied home values indeed increased over the period from 1990 to 2000, but not nearly as much as they did in the previous decade from 1980 to 1990. Home values increased at the slowest rate in Limestone, where the vacancy rate remains high. (See Table 4.2.)

Table 4.1 Housing Units and Vacancies for the Loring AFB Region					
	Total Housing Units			Vacancy Rates (%)	
	1980	1990	2000	1990	2000
Caribou	3,705	4,089	3,831	9.0	8.9
Fort Fairfield	1,599	1,648	1,654	9.0	7.9
Limestone	2,605	2,434	1,196	7.8	30.8
Presque Isle	4,052	4,411	4,405	6.5	10.0

Source: U.S. Bureau of the Census

During the decade from 1990 to 2000, only Fort Fairfield's home values increased faster than in Aroostook County. The 2000 Census recorded a median owner-occupied home value in Aroostook County of \$60,200, up 31.2 percent from \$45,900 in 1990. When the 1990 home values for Caribou, Fort Fairfield, Limestone, and Presque Isle are converted to real 2000 dollars, home values declined except in Fort Fairfield. After the home values are adjusted for inflation, only Limestone's median home value of \$59,573 in 1990 (in real 2000 dollars) fell faster than the state average of 11 percent, at 14 percent.

Even after the demolition of housing units on base property, the vacancy rate in Limestone increased almost four-fold to 30.8 percent. Presque Isle also experienced a rising vacancy rate, but housing units there did not decrease nearly as dramatically as they did in Limestone. The

vacancy rates in all four communities fared better than Aroostook County as a whole in 1990, when the 1990 Census recorded a vacancy rate of 18.4 percent. In 2000, only Limestone's vacancy rate fared worse than Aroostook County's vacancy rate of 21.6 percent in 2000. Prospects for a reduction in the county-wide vacancy rate are bleak. The County is expected to lose population in the near future, and this will only aggravate the vacancy rate absent a reduction in total housing units, which is not foreseen.

Table 4.2 Median Owner-occupied Home Values					
	1980	1990	2000	Percent Change 1980 – 1990	Percent Change 1990 – 2000
Caribou	\$33,300	\$50,000	\$61,700	50.2	23.4
Fort Fairfield	29,000	43,800	57,600	51.0	31.5
Limestone	27,100	45,500	52,300	67.9	14.9
Presque Isle	33,900	51,700	67,100	52.5	29.8

Source: U.S. Bureau of the Census



While much of the former on-base housing was demolished, some was converted to dormitories to host the more than 350 students at the Loring Job Corps Center.

Impacts to the Region Aside from Base Closure

Analyzing the effects of the closure of Loring AFB requires an understanding of the regional context. Both regional and local economic forces affected recovery efforts in Aroostook County at the time of the base closure and during redevelopment. Increased competition from Canada and a potato blight combined to aggravate the negative impact felt by the Limestone region as a result of the Loring base closure.

Relationship with Canada

Loring AFB is situated only five miles west of the international border at New Brunswick, Canada. From 1987 to 1992, Aroostook County benefited from cross-border shopping as the number of Canadians entering northern Maine nearly doubled. Consumer retail sales in all five northern Maine Economic Summary Areas grew at a considerably faster rate than for the State. The Presque Isle ESA, which includes Loring AFB and surrounding towns, grew at 17 percent, the slowest rate of the five, but faster than the State average of 10 percent. Canadians flocked to northern Maine to make routine purchases after Canada implemented the Goods and Services Tax (GST) that increased cost of Canadian goods by an average of 17 percent. In addition, Canadians experienced a favorable exchange rate.

The trend began to change in 1991. By 1993, the region experienced a 19 percent drop in border crossings. In that year, the Province of New Brunswick began collecting a Provincial Sales Tax (PST) on goods entering Canada from Maine, and added new tariffs and increased duties on beer and cigarettes. These fees forced many Canadian shoppers to remain at home rather than cross the border into Maine to shop, thereby ending most Canadian commerce in Aroostook County. In addition, the discount on Canadian currency climbed from 16 percent in 1991 to 35 percent in 2001, further discouraging cross-border shopping.¹⁵

Although growth in the retail sector slowed because of Canadian economics, the 1993 opening of the 525,000 square foot Aroostook Centre Mall in Presque Isle offset the losses from Canadian consumers. Home to more than 40 businesses, the variety and selection of goods attracts shoppers both locally and from Canada, particularly since the devaluation of the U.S. dollar and the relative strength of Canadian currency. The mall also created approximately 700 new jobs and payroll of \$7.8 million.

Potato Blight

Maine is the fifth largest potato-producing state, and Aroostook County accounts for 90 percent of Maine's potato crop. A potato blight in the early 1990's adversely affected the potato industry, resulting in a significant loss of revenue for Aroostook County and the state. The blight, which greatly reduced the supply of salable potatoes, added to the loss of jobs and income resulting from the Loring base closure. More recently, the potato crop has recovered. In 2003, Maine's potato industry consisted of 500 businesses with 2,600 employees, generating \$300 million in annual sales and providing \$112 million in income to Maine residents. Indirectly, Maine's potato industry generated an additional 2,400 jobs and \$175 million in sales through its chain of suppliers.¹⁶

Future Growth at Loring...

Carl Flora, President and CEO of the Loring Development Authority since 2004, envisions substantial growth at the Loring Commerce Centre over 3 to 7 years. In that time, he expects the LDA to self-finance infrastructure and building projects. The LDA is entertaining three major business deals that could produce more than 700 jobs, while continuing to market the base's assets:

- Irving Forest Products has plans to build a value-added wood processing plant at the Loring Commerce Centre. The Irving project would require a \$120 million investment and would employ approximately 200 employees.
- Lamb Weston, the largest French fry producer in North America, has leased property at the Loring Commerce Centre to create its first New England processing plant. It has yet to start the \$85 million project because world demand for French fries has weakened as a result of the low-carb diet craze. The French fry industry is expected to recover as the hype for low-carb dieting wears off. Lamb Weston would employ around 200 workers at the Loring plant.
- Loring Bioenergy would like to extend a natural gas pipeline onto the base and establish a 55-megawatt power station, making the Commerce Centre more attractive for future businesses by supplying heat, energy, and steam resources. Creation of the power station hinges on the ability of the company to obtain a 15-year commitment from energy users. Loring Bioenergy would employ 35 workers.¹⁷

The Irving Forest Products deal could bring much-needed diversity to the timber industry through value-added enterprise. The Northern Maine Development Council estimates that keeping forestry products in Maine for lumber, mill-working, and producing unassembled secondary products could generate 11,000 new jobs and \$249 million annually in additional revenue to processors. Irving Forest Products would join the existing MacDonald Enterprises at the Commerce Centre. MacDonald Enterprises is a value-added wood products manufacturer that distributes its products to retailers and consumers via mail order and an on-site retail outlet.

Future development at the Loring Commerce Centre may come from the University of Maine system and some of its research partners. The Centre has significant rail infrastructure left by the Bangor and Aroostook Railroad, which once provided coal delivery to Loring. It also possesses a state-of-the-art telephone system that can support back-office industries. The DFAS operations and SITEL call center are two examples. The Loring Commerce Centre's advanced telecommunications infrastructure overcomes the perceived isolation of northern Maine's geographic location.

The crown jewel of the base consists of two runways that are among the most accommodating, being 300 feet wide and 12,100 feet long. The Centre has some of the most sophisticated aircraft facilities in the country, which have been approved for civilian use. The landing facilities are currently designated as a noncommercial airport for private use with prior permission. A civilian airport already exists in Presque Isle. Thus, reuse of the Loring landing facilities would probably not involve passenger service.

Instead, these facilities could support aircraft testing, manufacture, storage, repair, painting, cargo operations, or a deployment center for military equipment.

...Compared to the Outlook for Aroostook County

A pool of educated labor is available in Aroostook County at relatively low cost for new business. This labor pool has one of the highest high school graduation rates in the nation (94.5 percent). The County boasts a strong post-secondary educational system, which includes the University of Maine at Presque Isle, the University of Maine at Fort Kent, and the Northern Maine Community College in Presque Isle. The Community College works with area businesses and industry to design training programs in the trades and for office staff. Husson College offers evening classes in Caribou in the areas of business management and accounting for both graduate and undergraduate students.

Nevertheless, the economic outlook for Aroostook County as a whole is bleak compared to the prospects for business at the Loring Commerce Centre. Economic activity throughout the County is stagnant. The closing of plants and significant workforce reductions have impacted the County in ways not experienced in Southern Maine. Ensuring a steady supply of qualified workers remains fundamental to economic growth and sustained prosperity, and the educational system in Aroostook County serves this end. However, it is not enough to offset the adverse effects of a declining population.

The area is plagued by underemployment. The underemployed, who are working in jobs below their level of training or education, include discouraged workers, involuntary part-time workers, and people who want to work but face barriers such as transportation or childcare. Hamel and Flora agree that underemployment continues to be a persistent problem in Aroostook County. A considerable number of residents wish to stay in the area, so they travel 55 miles to Limestone from Houlton or Fort Kent to work two jobs that do not match their skills. To support themselves in the County, some skilled workers accept unskilled entry-level positions for minimum wage. The federal DFAS center, the Maine Military Authority, and the Loring Job Corps Center have absorbed much of the underemployed population in jobs requiring education and skill. These public employers offer wages and benefits superior to other businesses in the County. Nevertheless, they have absorbed only a small portion of the County's immense underemployed population. The Maine Military Authority has over 2,000 applications on file. Recently, when the DFAS center posted 80 new jobs, it received 400 qualified applications. It filled these positions in an average of just 9.3 days, the lowest recruitment interval of any DFAS center in the country.¹⁸ For this and other reasons, the State of Maine has countered the DoD recommendation for closure with the argument for expansion of the Limestone DFAS center.

If the DFAS center closes its doors as a result of the 2005 BRAC Commission recommendations, Aroostook County will lose 354 direct civilian jobs with average wages of \$39,000 annually. The DFAS center is among the largest employers at the Loring Commerce Centre and one of the highest paying employers in the region. Even so, its workers account for only 1.5 percent of total jobs and 2.2 percent of total wages paid by employers within 30 miles of Limestone in 2004. Estimates suggest the direct

and indirect job losses from the absence of payroll spending and local center purchasing will cause a one-third spike in the unemployment rate to 6.7 percent.¹⁹ If the DFAS center closes, it will be another major set-back for Limestone, but it will not adversely affect the operations of the Loring Development Authority. On the contrary, the LDA does not currently have authority over the DFAS center, but it may acquire the DFAS facilities for redevelopment purposes if the center closes. This will give the LDA a major new asset to market for private enterprise. However, the acquisition of this asset will pose a challenge; the LDA will need to find a large tenant willing to move into the DFAS facility and to absorb the highly skilled labor force. If the LDA is unsuccessful, there will be a glut of displaced workers with knowledge and experience in finance-related occupations experiencing a substantial decline in earnings upon re-employment, while others will be forced to relocate out of the County in search of suitable employment.



A tall water tower greets entrants to the Loring Commerce Centre.

Summary and Conclusions

When Loring AFB received notice that it was on the list of military bases to be closed, the public braced for a major catastrophe. Newspaper headlines announced concerns of a community facing doom. Near the base, shopkeepers, bar owners, and local government officials tearfully anticipated that their community would become an economic backwater or ghost town. Local commissions, including the “Save Loring Committee,” were formed to try to save the base and community. Leaders rushed to Congress to complain that the closure would ruin their already fragile economy. Task forces estimated the projected tragedy for the community - retail sales would fall, jobs would be lost, county population would decline, and the unemployment rate would increase.

- Aroostook County lost 12,998 people or 15 percent of its population the decade of the base closure (1990 to 2000); Limestone lost an even greater (76%) percent of its population
- School enrollments declined most severely in Limestone, where 850 students or 71 percent of the student population left in 1994
- The civilian labor forces of Caribou, Fort Fairfield, Limestone, and Presque Isle decreased as a result of the Loring base closure in 1994
- Unemployment rates soared to 24.6 percent in Limestone and reached double-digit levels in Caribou and Fort Fairfield; the unemployment rates did not begin to fall until 1998 when it is clear that many workers left the civilian labor force
- Growth of the number of covered employers remains stagnant since the Loring base closure in 1994
- The Loring Development Authority has attracted 1,455 jobs to the Loring Commerce Centre as of May, 2005
- The average annual wage on the Loring Commerce Centre was \$28,306 in 2003, which was nearly \$3,000 higher than the average wage in Aroostook County during the same year
- The annual median household income in Limestone reached \$35,313 in 2000, which grew faster than the state average (3.2%), Aroostook County average (3.2%), and the growth in the neighboring towns of Caribou (3.0%), Fort Fairfield (3.0%), and Presque Isle (2.5%) from 1989 to 2000
- The removal of \$38.5 million in Loring AFB expenditures and base employee incomes slowed the growth of taxable retail sales in the Presque Isle Economic Summary Area from 1995 to 1998, implying that some, but not all, of the base expenditures were in the local economy
- Limestone experienced the a decline of 1,238 housing units, or 50.9 percent, between 1990 and 2000; despite the loss of housing units, Limestone’s vacancy rate quadrupled to 31 percent
- Home values in Limestone increased at a slower rate (14.9 percent) than in Caribou, Fort Fairfield, and Presque Isle during the decade of the base closure
- Future growth prospects at the Loring Commerce Centre could bring more than 700 new jobs to Limestone and more than \$100 million in incomes; this optimism contrasts with the population and employment challenges facing Aroostook County as a whole

Fourteen years later and 11 years since the closure of the Loring base, the forecast of regional doom and gloom appear to have been overstated. Were it not for redevelopment efforts, the effects in Limestone, where the base was situated, would have been disastrous. Limestone was a small town without a diversified economy in a rural area with a population already in decline. Limestone is still a small town, but its economy has diversified, thanks to the Loring Development Authority and its creation and management of the Loring Commerce Centre. The 1,455 jobs at the Centre exceed the 1,199 civilian jobs lost at the base. Limestone lost 7,597 people, or 76 percent of its population, which accounts for most of Aroostook County's population loss between 1990 and 2000. However, the transfer of 7,194 military personnel and their dependents accounts for most of this population decline. Stated otherwise, the secondary effects in terms of population loss were offset by redevelopment, including the creation of new jobs. Even so, Limestone's population loss, like that of Aroostook County as a whole, is the single greatest detrimental effect of the Loring base closure.

Loring AFB experienced a distinguished history as one of the oldest Strategic Air Command locations in the country. That history is slowly being rewritten as an unlikely redevelopment success story. A long and expensive environmental cleanup process delayed redevelopment for three years because base property could not be transferred before the cleanup. As a result, a number of civilians formerly employed at Loring retired or left Limestone to seek comparable employment elsewhere. However, the three-year delay facilitated the improvement of Loring's infrastructure, which was essential to attracting the current tenants at the Loring Commerce Centre.

The labor force in Caribou, Fort Fairfield, Limestone, and Presque Isle initially plummeted in 1994 and continued to decline in all four communities until 1998. The labor force in Caribou and Presque Isle has rebounded, while the labor force in Fort Fairfield and Limestone has continued to decline. The unemployment rates in these communities have stabilized to levels equal to or slightly higher than the average in Aroostook County and the State of Maine. Even with the Loring Commerce Centre in Limestone, a significant number of employees come from surrounding towns and from as far away as Houlton and Fort Kent.

The success of the Loring Development Authority is evident from the 1,455 jobs that currently exist at the Loring Commerce Centre. The average wage of \$28,306 in 2003 at the Loring Commerce Centre is above the average for Aroostook County. The median household income in Limestone is growing faster than in the State of Maine and should continue to grow with further development at the Loring Commerce Centre.

With the Loring base closure came a declining growth rate in home values in Caribou, Fort Fairfield, Limestone, and Presque Isle. Nevertheless, home vacancy rates were lower in 2000 than in 1990, except in Limestone. As with population, labor force, and unemployment effects, the greatest impact on home values is localized in Limestone.

Recommendations for Future BRAC Rounds

Following a closure, the local community can become impatient when redevelopment does not happen immediately. The significant time required for property transfer is one of the major challenges to redevelopment. A long property transfer process can discourage a community as it watches a nearby base deteriorate after its gates close. More importantly, there is a critical time period of 1 to 4 years during which the skilled labor force will leave a community unless it can find comparable employment. The sooner base redevelopment begins, the sooner a local economy can regain income lost from a base closure. Base closure communities must pursue opportunities to speed up property transfer while preparing for redevelopment.

Expedite Property Transfer

Through the use of leases and various assistance programs, local redevelopment authorities can expedite property utilization. According to the United States General Accounting Office, 65 percent of base closure property that has yet to be transferred is being leased to redevelopment authorities and other entities by the Department of Defense.

The DoD cites numerous means for communities to obtain surplus base property:

- Public conveyances
- Economic development conveyances
- Homeless assistance conveyances
- Negotiated sales and advertised public sales

The Loring base property was acquired through an economic development conveyance at no cost. This allowed the property to be offered to businesses for redevelopment at well below market value. If communities are unsuccessful at acquiring the property at a significant discount, they can still purchase the property through negotiated sales.

In an effort to expedite transfer of base property, the DoD has restructured its method of undertaking environmental cleanup for the 2005 BRAC round, including increasing the amount and immediacy of available funds and prioritizing the cleanup process. Communities must pursue political avenues to secure money and priority for cleanup. In order to do this, they must present a plan for reusing and redeveloping base property (known as a “reuse plan”) to the Department. The single greatest reason for redevelopment delay is the lack of early planning on the part of redevelopment authorities.

In devising a reuse plan, local redevelopment authorities must consider that different uses of base property require different levels of cleanup. Plans to redevelop the Portsmouth Naval Shipyard in the event of its closure illustrate this need. The State of New Hampshire has proposed residential development of the shipyard property as a reuse plan. Residential development of base closure property requires the greatest level of environmental cleanup. Recognizing the potential delay, the State of Maine has proposed instead an industrial or other nonresidential reuse plan.

Plan Early

If a particular community is vulnerable to closure, advance planning should begin even before the BRAC Commission makes its final recommendations. While fighting a base closure, communities should not lose sight of the simultaneous need to plan for redevelopment. They must also remember that, historically, 85 percent of base closure recommendations have been confirmed. Communities must avoid lengthy disputes that delay tangible redevelopment efforts. Strong local leadership must demonstrate its willingness to contest a closure, but be ready to bring a community forward if the contest fails. Much literature exists to aid communities planning for redevelopment. A selected list is included in the appendix.

When communities seek to attract new business in response to a base closure, their efforts need to reflect the needs and skills of the area labor force. In other words, economic development must combine with workforce development. Redevelopment planners should target the needs and skills of displaced workers. Current and future business needs and current workforce characteristics should be factored into a base closure community's redevelopment plans. Communities should then target federal and state assistance programs that best fit their reuse plan.

Apply for Federal, State, and Local Funds

Communities should take full advantage of federal, state, and local assistance programs. Federal financial assistance for base reuse and redevelopment, totaling \$1.2 billion, comes from a variety of federal sources:

- Office of Economic Adjustment in the Department of Defense
- Department of Labor
- Economic Development Administration in the Department of Commerce
- Federal Aviation Administration in the Department of Transportation

Other forms of federal, state, and local assistance include career transition counseling, job retraining to help workers acquire skills for new trades, and placement services for unemployed workers. Communities should not disregard the private sector's capacity to conduct its own training programs, as companies sometimes prefer these to government-sponsored training initiatives. Of course local redevelopment authorities should apply for as many grants as possible.

The Loring Development Authority was particularly adept at obtaining federal financing. It emphasized its rural location to attract federal grants which paid for worker retraining, administrative costs, and financial incentives for new business. The 2005 BRAC round promises more grants than ever before, even for planning. Communities must apply for this money and plan early.

Develop a Realistic Theme to Attract Business

Communities should carefully consider how best to utilize their local industries, physical infrastructure, and human capital to recover from a base closure. For example, in the case of Loring, the LDA has marketed its natural resource industries, updated telecommunications network, and prime aviation facilities. By identifying its strengths, a community can discover where it has a competitive advantage over other communities. Then, it can target businesses that will contribute to and benefit from regional growth

trends. Each redevelopment success can serve as a magnet to attract more business. For example, the Maine Military Authority, which serves primarily as a Humvee repair facility, led to the establishment of Impac Auto, Inc., a supplier of specialty heavy equipment parts. The plan for a Loring Bio-Energy power station has even greater potential to attract new business. Untapped business potential in a local economy can be an important source for redevelopment and economic diversification, as in the case of the value-added component of Aroostook County's timber and potato industries.

At the same time, redevelopment themes must be realistic. Loring could not become a biotechnology center. The LDA has focused instead on the strength of the area's natural resource industries and their potential for economic diversification by courting forestry manufacturers and potato processing plants. Similarly, redevelopment of Pease Air Force Base in Portsmouth, New Hampshire, has attracted more than four thousand jobs by converting base facilities into the Pease International Tradeport. In Mesa, Arizona, Williams Air Force Base filled a niche as an aviation and aerospace center. The former Fitzsimons Army Medical Center in Aurora, Colorado, has become a commercial medical center with a focus on biotechnology research through the University of Colorado Hospital and Health Sciences Center. The Charleston Naval Shipyard in Charleston, South Carolina, now hosts commercial ship repair centers and a steel manufacturing plant. Other base reuse themes have focused on vocational education, while still others served correctional needs. From public airports to prisons, opportunities exist. The LDA even transformed the Commerce Centre into a concert venue for three Phish concerts in 1997, 1998, and 2003 which brought more than 70,000 fans and their wallets up to Limestone each year.

As the examples above illustrate, redevelopment planners should capitalize on base assets such as aviation facilities and industrial equipment when formulating a reuse theme. Many closed bases contained recently constructed classrooms, housing units, medical clinics, and schools which could be readily converted to civilian use. Perhaps the most significant asset is the massive transfer of real estate itself, which can sometimes involve advantageous locations, such as waterfront sites. Exceptionally large holdings in single ownership could make large-scale redevelopment possible without the usual land assembly problems and costs. The other important asset to consider is the highly skilled workforce, which serves as valuable human capital as long as it can serve the needs of existing or new business in the area.

Balance Politics with Private Sector Recruiting

Communities should welcome public employment as it generally brings higher wages, full benefit packages, and new money into the area. However, it should not be the sole focus. The Loring Development Authority's former President and CEO, Brian Hamel, acknowledges, "It is true that in many cases that the first activity at former military bases are public in nature." He explains, "This activity just happens as part of the process." He cautions, however, that it should not be seen as a strategy. Instead, Hamel advises communities to "focus upon the private sector, while at the same time being aware of public opportunities should they arise." Hamel observes, "Politics is very much a part of the base closure process, both prior to and following closure." For example, the DFAS center and Loring Job Corps Center resulted from the success of Maine's Congressional delegation in convincing the federal government to replace one source of federal funding

with another. Hamel believes these decisions have proven their efficacy “because both centers have become national models.”²⁰

Stay Positive

Throughout the redevelopment process, having a deliberate, well-conceived public relations strategy and information sharing plan can bring expectations in line with reality and focus community efforts. The tone should be positive, especially following the panic that usually accompanies a base closure announcement. According to interviews conducted by the General Accounting Office, the “panic, in some cases, can be more damaging to the community’s well-being than the closure itself.”²¹ Base closure pessimism can be self-fulfilling. A negative outlook only adds to investor fears, and thus, inhibits redevelopment efforts. Setting optimistic redevelopment goals and making these widely known is a key step to building confidence in the community and enticing private firms to the area.

Communities should not see bases as permanent entitlements. Communities should anticipate military trends and future mission priorities with an eye toward possible redevelopment. Appropriate investments in area infrastructure can advance this effort. Ultimately, all communities should be prepared to cope with the dramatic changes that economic lifecycles can impose on a community.



The Maine Military Authority is a Humvee repair center which also refurbishes other military and government-owned vehicles. It is the largest employer at the Loring Commerce Centre with over 500 skilled employees.

Appendix

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Additional Base Closure Literature

Organizing Your Planning Effort: The First Steps in Installation Redevelopment
Yvonne Dawson
May 2005

http://www.naid.org/Planning_LRA.pdf

Describes the steps of successful local redevelopment authorities to the announcement of a military base closure. From the National Association of Installation Developers (NAID), a Washington-based group that studies base-closing issues.

From Barracks to Business: The M.I.T. Report on Base Redevelopment

Bernard J. Frieden and Christie I. Baxter

Economic Development Administration

U.S. Department of Commerce

March 2000

Explores the ways local communities and Local Redevelopment Authorities (LRAs) have risen to the complex challenges posed by base closings announced between 1988 and 1995 by BRAC Commissions. Describes LRA duties and the three phases of redevelopment. Includes a report on various experiences of communities impacted by base closures. Includes thorough case studies of five communities in California, Arizona, Ohio, Colorado, and Texas, all influenced by BRAC decisions.

Understanding Base Realignment: What Communities Should Know First

Todd Herberghs

May 2005

http://www.naid.org/InfoBrief_Realignment.pdf

Gives special consideration to the issues related to realignment and how it differs from complete closure. Focuses specifically on property transfer and options of reuse when military operations are still carried out on the rest of the base.

¹ Data comes from the Socioeconomic Impact Analysis Study from March, 2004. This data includes a “secondary civilian” aggregate, which is not considered in the rest of this analysis.

² Frieden, Bernard J. and Christie I. Baxter, *From Barracks to Business: The M.I.T. Report on Base Redevelopment*. Economic Development Administration, March 2000.

³ Defense Base Closure and Realignment Commission Report to the President, 1991.

⁴ Colgan, Charles S. and Bruce H. Andrews. “Migration and Youth Migration from Aroostook County: Trends Factors, and Implications.” October 1994.

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¹¹ <http://www.loring.org/environment.html>.

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¹³ Loring Air Force Base Economic Resource Impact Statement, 1990.

¹⁴ Socioeconomic Impact Analysis Study.

¹⁵ Northern Maine Economic Profile, 1994, pg. 10.

¹⁶ “A Study of the Maine Potato Industry: Its Economic Impact 2003.” The Maine Potato Board, pg. 1.

¹⁷ Email correspondence from Patricia Zenzius, Property and Human Resources Manager of the LDA, August, 16, 2005.

¹⁸ Personal interview with DFAS representative Terry Hopkins. June 21, 2005.

¹⁹ Maine Department of Labor.

²⁰ Email correspondence from Brian Hamel, July 28, 2005.

²¹ Watson, pg. 17.

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